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ABSTRACT

Research on ethnic minority participation in community college education is reviewed in eight sections. The first delineates the distinguishing features of the modern community college, such as its emphasis on occupational education, its diversity of programs, and the prevalence of non-traditional course-taking patterns. The second section analyzes enrollment data from state and national studies focusing on variations from state to state and revealing that proportionately more minority students are enrolled in two-year colleges than senior institutions. The third section discusses contradictory study results on attrition rates, and argues against the assumption that dropping out represents failure. The fourth section describes special programs for minorities, and the effectiveness of those that encompass both educational and student services. The fifth section argues that current selectivity standards have made occupational, rather than liberal arts, programs more difficult for minorities to enter. The sixth section suggests how special programs can help overcome barriers to minority success created by open admission policies. The seventh section deals with institutional practices that may hinder or encourage minority participation. The final section enumerates issues concerning articulation/transfer of community college students to senior colleges. (JP)

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ETHNIC MINORITIES IN TWO-YEAR COLLEGES

Report to the

Higher Education Research Institute

Prepared by the

Center for the Study of Community Colleges

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Ethnic Minorities in Two-Year Colleges

Introduction

This review considers issues of ethnic minority participation in community college education. Although the two-year colleges enroll proportionately more minority students, most of the literature on minorities in higher education considers the four-year college and university contexts. The reports in the literature on the two-year college tend to be anecdotal, one-institution descriptions of a program, service, or trend. Thus, this review presents the issues that concern community college officials--largely, practitioners rather than researchers--enough to report them.

First there is a discussion of the community college in general terms to provide a context for understanding what ethnic minorities encounter in this type of institution. The major subsections that follow this overview are minority enrollment, attrition, articulation, special programs and services, open access/barriers to minority participation and success in the two-year college,and institutional practices.

This report was drafted by Miriam M. Beckwith and Sandra J. Edwards with the assistance of Janice Newmark and Jennifer Brawer under the direction of Arthur M. Cohen and Florence B. Brawer.

Summary

Today's two-year college is distinguished from four-year institutions by several features. First is the diversity of its programs from college parallel to occupational to remedial to non-credit recreational and community interest. Second is its student body. Whereas ten years ago most students were enrolled in transfer programs, today the heaviest enrollments are in occupational programs. In addition, there are now as many students in non-credit as credit programs. Third, the changed student population has non-traditional course-taking patterns, which influences course scheduling, degree requirements, and many other facets of the educational process. This report is based primarily on a review of the literature on various aspects of this distinctive institution. The focus is particularly on ethnic minority participation in these institutions. The literature has been supplemented by data collected by the Center for the Study of Community Colleges and by a review of a nationally representative sample of 175 two-year college catalogues.

The enrollment data from state and national studies do show that there are proportionally more minority students in two-year colleges than in senior institutions. However, the percent of minorities enrolled in two-year colleges in relationship to their numbers in the 18-24 year old population varies considerably from state to state. Spanish origin students are underrepresented in some states. But, in others, such as Kansas, Michigan, New Jersey,

Ohio,and Tennessee, the proportion of blacks in two-year colleges is higher than their numbers in the state's 18-24 year old group.

The data on two-year college graduates, transfers, or enrollment by program are both scattered and incomplete. Such information is found in reports from single institutions or certain states; therefore, there is little uniformity in the way the data are collected and in the kind of data collected. Consequently, it is difficult to state whether minorities are clustered in certain programs in the community colleges and are absent in others or whether their transfer rate is significantly different than that of the whites.

Whether students remain after they enroll is another problem. The literature reviewed provides mixed evidence on the attrition rates of ethnic minority students. Several studies indicate that their withdrawal rate does not exceed their proportion of the student population, although others contradict this conclusion with evidence of high withdrawal rates. In addition, in certain isolated cases, data indicate that minority attrition may even be less than the rate of white student attrition. These contradictions indicate the difficulties in obtaining accurate attrition data.

One assumption that appears to pervade the community college attrition literature is that dropouts represent failure and persistence equals success.

However, such an assumption ignores the issue of student objectives. Since the two-year college attracts a diverse student population, not all students enroll with the intention of obtaining a formal degree within a specified amount of time. Thus, the definition of "dropout" becomes more problematical within the context of two-year colleges.

Acknowledging the large proportion of academically disadvantaged and other high risk students, many of whom are members of ethnic minorities, a number of special programs and services have been instituted by two-year colleges. The efforts range from programs initiated within the institution (ethnic studies programs, developmental studies, special recruitment, counseling, and tutoring programs),to the creation of special colleges such as Navajo and Oglala Sioux Community College formed to meet needs of American Indian students. The most ambitious programs encompass both educational and student services, and these appear to be the most successful in helping students succeed in reaching their educational objectives.

Vocational/occupational programs have undergone a tremendous increase within the community college curriculum in the last decade. More programs are being planned and offered by colleges and more students are seeking admission to the occupational as opposed to the transfer division. In fact, the student demand for certain programs, especially those in the allied health fields and in the highly technical areas, is greater than the number of available spaces. The result is that some programs now have selective admissions

and may require a certain SPA, a given score on a standardized test, and even a personal interview.It seems that these more stringent admission policies may make it more difficult for minority students to enter these desirable programs.

Besides their concern for tracking within community college programs, critics of the minority role in higher education further suggest that the whole free access mission of the two-year college makes that level of higher education the "ghetto" of the postsecondary system and that this "ghetto" contains barriers toward upward mobility of the students within it. These barriers include insufficient financial assistance, inadequate counseling, student motivational problems, and student academic deficiencies. Yet, when these criticisms are more closely examined, it appears that large percentages of community colleges have special programs for minority disadvantaged students (See Morrison, 1973) to counteract these barriers, and the liberal arts transfer programs within the two-year college tend to be among the least restrictive in admission criteria.

A number of the problems and issues covered in this report cannot be alleviated by the individual institution. There are, however, institutional practices that may hinder students in their two-year college experience. Among the practices described in the catalogues that can hinder students are the special admission requirements for various vocational programs, differential

tuition which may cause part-time students to pay more than full-time, and complicated bureaucratic procedures for dropping courses and withdrawing from college. On the other hand the scheduling of classes in the evening and on weekends, the mechanisms by which students can utilize past experience to obtain advance standing, and the avoidance of failing grades are practices which may assist students in reaching their educational objectives.

One other important area in providing upward mobility to two-year college students is articulation. While a number of articulation/transfer problems have been resolved through formal and informal agreements between institutions and/or on a state wide basis, certain practices continue to present problems for all transfer students. However, the question of transfer credit for remedial courses, the limited availability of financial aid for transfer students, and the "transfer-shock" phenomenon may all fall particularly heavily on minority students.

Profile of the Community College

Two-year colleges enroll one-third of all students in higher education--more than four million students. According to most recent figures, over half (53%) of all students enrolled in post-secondary institutions for the first time were enrolled in two-year colleges (AACJC, 1979).

Several features distinguish the comprehensive community college from four-year institutions, and any consideration of curriculum must take them into account. The first characteristic concerns the multiple missions of the two-year college. Besides programs for students transfering to four-year colleges, programs are provided for terminal students interested in general education, for students in occupational or vocational fields, for students requiring remedial work to prepare to enter transfer or occupational programs, and for non-degree adult and continuing education students desiring cultural, recreational, or community interest courses. In addition, the counseling and guidance function has become an increasingly important one.

A second distinctive characteristic of the community college is the transformation in its student body. For example, the number of students enrolled in occupational programs has increased from 13 percent in 1965 to 50 percent in 1976 (AACJC, 1976), and Lombardi (1978) even notes that "it is not unusual to find colleges, even entire state systems, where occupational enrollments exceed transfer enrollments" (p. 1). The number of students participating in non-credit courses or programs has increased over 100 percent in one year (1.5 million in 1975 to 3.2 million in 1976). The fact that in

1976 as many students enrolled in non-credit as credit programs (Lombardi, 1978) provides evidence of the phenomenal changes occurring in community college programming.

Changes in the composition of tne student population itself include increases in the number of part-time students, students over twenty-five, women returning after extended absence, senior citizens, students from minority groups, and academically "underprepared"students (Knoell, 1973). Traditional full-time students entering the community college directly from high school account for only 20 percent of the enrollments.

A third distinctive characteristic of the community college concerns the non-traditional course-taking pattern of its students. The community college curriculum no longer reflects the classical, coherent, integrated, planned programs; students drop in and step out, change majors and begin programs without finishing them (Cohen, 1979).

What further characteristics distinguish the two-year college? How will the community college evolve in the future? The number of colleges will change, although not as markedly as in recent decades. The pattern of institutional development points toward their expanding until each state includes a college within reasonable daily commuting distance of nearly every resident. When a state reaches this saturated stage, new colleges are opened only when shifts in the population occur. Several have already reached this level of maturity: Washington, Florida, California, Michigan, Illinois, Ohio, and

New York. If the number of colleges in all states expands to a comparable relationship with area and population, the nation will top out at approximately 1,400 institutions, or about 200 more than were in operation in 1976. (This leveling of growth is predicated on the assumption that a sizable proportion of the private junior colleges will merge or close. These institutions have displayed no growth since the 1950's, and many of them will be forced to go public or to effect liaisons with senior institutions.)

If the definition of "community college" is modified to include a variety of adult schools, technical institutes, and occupational training centers not now covered within its scope, the numbers could change drastically. There is some indication that this is happening--witness the recent changes in the title of the directory published by the American Association of Community and Junior Colleges: from Junior College Directory (pre-1972), to Community and Junior College Directory (1973-1974), to Community, Junior, and Technical College Directory (1975). If even more institutional types are brought in under the rubric, the projected figure of 1,400 might easily be doubled. South Carolina and Wisconsin, for example, have entire systems of technical colleges organized apart from their two-year university branches. Both types of institutions are usually counted as "two-year colleges." But Pennsylvania's two-year university branches, formerly in the Directory, were dropped. Definitional modification is more influential on changes in numbers of colleges than is typical expansion.

All colleges in all states will not take the same form. There are now--

there have always been--differences in curriculum emphasis. Where opportunities for postsecondary education in four-year colleges are high--such as in Connecticut, Pennsylvania, Ohio, and Massachusetts--the two-year colleges may well accomodate themselves to a curriculum of occupational offerings along with remedial studies and college-parallel courses for students who either are not admissable to the senior institutions or who choose to stay at home and go to the local college.

Organizational forms will not change much. The colleges now fall into four main organizational types: private, independent, or church-related; two-year branch campuses of senior institutions; colleges founded by local school districts and supported with some assistance from the state; and state-level managed colleges. The pattern of organization in coming years will follow these lines, with emphasis on the institutions governed at the local level and supported with state funds. Although funds will be distributed more equitably among districts in each state, a corresponding trend toward state-level control of curriculum will not perforce develop. Colleges offering programs that reflect the tendencies of the residents of their district will remain the dominant type. The current trend toward localism and the acceptance of diversity and plurality in populations could sustain a network of colleges funded in common pattern, but each with its own particular characteristics. However, without vigorous effort by local leaders to maintain their colleges' distinctiveness and responsiveness, the tendency toward imitation that propels institutions toward commonality may take hold.

Minority Enrollment

In Minority Access to College, Crossland discusses the difficulties involved in obtaining reliable enrollment statistics. Problems arise as to what students are counted--full-time students only, full-time and part-time, full-time equivalents where part-timers are included as fractions of students, or formal degree candidates. Another problem is when the counting takes place--first day enrollments, end of fourth week, or even a later time when considerable attrition has taken place. Classifications of people by race or ethnic background are difficult to obtain. First,the categories themselves vary considerably and undergo definitional change. In addition,such data depend upon subjective self-definition or the eye of a fallible observer which also leads to imprecise statistics.

Which students are counted and when the counting takes place are particularly critical in discussing the community college. The most recent AACJC Factsheet (1979) lists 61 percent of the students in the community college as part-time; thus it is imperative to include the part-timers in the enrollment statistics. In addition, because the attrition rate in community colleges is considerably higher than that of most four-year institutions, the time at which the enrollment figures were obtained needs to be considered. Unfortunately, the data tabulators rarely give such information.

Despite these caveats the following tables on minority enrollment in two-year colleges are presented.

Table 1 taken from the AACJC's Minorities and Community Colleges (1979) provides trend data on minority enrollments for three time periods in the past eight years. Minority enrollments have grown from 14.4 percent in a 1970 U.S. Census survey to 20.7 percent in 1979 according to an AACJC survey (See also Goodrich, Lezotte, & Welch, 1973 for 1970 minority data), an increase of 43.7 percent in this time period. It should also be pointed out that while total two-year college enrollment increased by 5.5 percent between 1976 and 1977 and decreased by one percent between 1977-78 (data in the 1978 and 1979 editions of the Community, Junior, and Technical College Directory), minority enrollment appears to have decreased by about 0.4 percent.

Table II examines the 1978 figure in more detail as it presents minority enrollments by state. Table III indicates that in 1976 the percentage of minority enrollment was greater in two -year colleges (22.6%) than for higher education as a whole (19.0%). This was true for all the ethnic categories, except nonresident alien.

Table IV taken from the Digest of Educational Statistics indicates the number of minority students in the various types of institutions. From these figures it appears 44 percent of all minority students in higher education were in two-year colleges. This figure is higher than the 38.8 percent reported by AACJC (p. 7, 1979).

TABLE I

MINORITY ENROLLMENT PERCENTAGES IN ALL TWO-YEAR COLLEGES
(from three sources)

	Full-Time			Part-Time			Total		
	1970[1]	1976[2]	1978[3]	1970	1976	1978	1970	1976	1978
Black	4.8	13.1	13.1	3.5	10.4	9.2	8.3	11.7	10.7
American Indian or Native Alaskan	0.4	1.1	1.0	0.3	1.0	1.0	0.7	1.1	1.0
Asian or Pacific Islander	0.8	2.0	2.3	0.6	2.2	2.4	1.4	2.1	2.4
Hispanic**	2.3	7.1	8.0	1.7	6.2	5.8	4.0	6.6	6.6

[1]Fall 1970, HEW/Office for Civil Rights

[2]Fall 1976, HEGIS SURVEY

[3]Fall 1978, AACJC Minority Survey

*"Oriental" in 1970 Survey

**"Spanish" in 1970 Survey

Source: AACJC, 1979

TABLE II

STATE ENROLLMENT, PERCENTAGE BY RACIAL/ETHNIC GROUPS,
AACJC, 1978

State	Non-Resident Alien	Black Non-Hispanic	American Indian or Alaskan Native	Asian or Pacific Islander	Hispanic	White Non-Hispanic	Minority Sub-Total
Alabama	1.3%	27.8%	0.1%	0.1%	0.1%	70.2%	29.8%
Alaska	0.2	0.2	42.3	1.2	0.7	55.1	44.9
Arizona	0.9	3.0	4.9	0.7	8.9	81.3	18.7
Arkansas	0.5	20.7	0.8	0.4	0.4	77.0	23.0
California	1.0	9.6	1.5	5.9	10.3	71.4	28.6
Colorado	2.3	3.8	0.9	0.9	8.4	83.5	16.5
Connecticut	0.4	8.7	0.2	0.5	2.5	87.3	12.7
Delaware	0.1	15.2	0.1	0.4	0.9	82.9	17.1
Florida	2.0	11.5	0.3	0.6	8.6	76.7	23.3
Georgia	1.5	18.9	0.2	0.5	0.6	78.0	22.0
Hawaii	3.1	1.2	0.2	70.1	3.8	21.2	78.8
Idaho	0.8	0.5	0.4	0.5	1.8	95.3	4.7
Illinois	5.0	14.4	0.3	1.2	2.2	76.6	23.4
Indiana	0.8	11.2	0.7	0.6	0.8	85.7	14.3
Iowa	0.9	1.6	0.4	0.4	4.8	91.6	8.4
Kansas	1.5	5.6	3.2	0.2	1.5	87.7	12.3
Kentucky	1.7	11.4	0.1	0.2	0.2	86.2	13.8
Louisiana	2.4	32.5	0.3	0.8	2.1	61.6	38.4
Maine	0.0	0.0	6.0	0.0	0.0	93.6	6.4
Maryland	3.0	19.6	0.3	1.3	1.1	74.5	25.5
Massachusetts	1.3	3.7	0.2	0.3	1.8	92.4	7.6
Michigan	0.7	13.1	0.7	0.5	1.6	83.0	17.0
Minnesota	1.5	0.7	0.4	0.2	0.3	96.6	3.4
Mississippi	0.3	23.2	0.3	0.3	0.5	76.0	25.0
Missouri	0.3	6.3	0.4	0.3	1.7	90.7	9.3
Montana	0.3	0.1	8.3	0.0	0.6	90.4	9.6
Nebraska	0.1	2.1	0.3	0.3	1.0	95.9	4.1
Nevada	0.3	6.5	1.8	1.3	2.4	87.7	12.3
New Hampshire	0.2	0.4	0.1	0.2	0.4	98.5	1.5
New Jersey	0.9	14.0	0.2	0.9	2.8	81.0	19.0
New Mexico	0.0	1.7	13.5	0.3	34.5	49.6	50.4
New York	0.4	10.3	0.5	0.8	4.5	83.2	16.8
North Carolina	0.5	20.5	0.9	0.3	0.3	77.1	22.9
North Dakota	0.7	0.3	18.1	0.0	0.1	80.6	19.4
Ohio	0.2	14.6	0.2	0.4	0.7	83.6	16.4
Oklahoma	4.7	8.0	4.5	0.9	1.0	80.6	19.4
Oregon	1.5	1.1	1.1	1.8	1.3	92.9	7.1
Pennsylvania	0.2	13.2	0.1	0.8	0.8	84.5	15.5
Rhode Island	0.2	5.1	0.1	0.3	0.3	93.7	6.3
South Carolina	0.4	29.9	0.1	0.3	0.2	68.7	31.3
South Dakota	0.2	0.2	2.6	0.6	0.0	96.2	3.8
Tennesse	0.7	18.6	0.1	0.2	0.3	79.8	20.2
Texas	1.7	10.8	0.3	1.0	12.0	73.9	26.1
Utah	0.2	0.4	1.4	4.0	3.1	93.6	6.4
Vermont	0.3	0.3	0.1	0.1	0.1	98.8	1.2
Virginia	0.2	13.0	0.2	1.7	0.8	83.8	16.2
Washington	3.4	2.6	1.3	1.9	1.2	89.3	10.7

TABLE IIa

State	Non-Resident Alien	Black Non-Hispanic	American Indian or Alaskan Native	Asian or Pacific Islander	Hispanic	White Non-Hispanic	Minority Sub-Total
West Virginia	0.0%	4.0%	0.2%	0.4%	0.2%	94.9%	51.1%
Wisconsin	0.2	7.0	0.7	0.4	1.1	90.3	9.7
Wyoming	1.0	0.7	1.3	0.3	1.7	94.7	5.3
American Samoa	0.0	0.0	0.0	98.5	0.0	1.4	98.6
Puerto Rico	0.0	0.0	0.0	0.0	100.0	0.0	100.0
Micronesia	0.0	0.0	0.0	100.0	0.0	0.0	100.0
All States Combined	1.4	10.7	1.0	2.4	6.6	77.6	22.4

Source: AACJC, 1979

TABLE III

MINORITY ENROLLMENT IN TWO-YEAR COLLEGES AND ALL OF HIGHER EDUCATION, HEGIS (1976)

	Non Resident Alien		Black Non-Hispanic		American Indian or Alaskan Native		Asian or Pacific Islander		Hispanic		White Non-Hispanic	
	Two-Year	All	Two-Year	All	Two-Year	All	Two-Year	All	Two-Year	All	Two-Year	All
MEN												
Full-Time	1.9	2.3	11.5	8.7	1.1	0.6	2.2	1.8	6.9	4.3	76.5	82.3
Part-time	0.9	1.1	10.1	9.4	1.0	0.9	2.3	2.1	6.8	6.0	79.0	80.4
Total	1.4	2.0	10.8	9.0	1.0	0.7	2.2	2.0	6.8	4.8	77.7	81.7
WOMEN												
Full-Time	1.0	1.0	15.0	11.9	1.1	0.7	1.8	1.7	7.3	4.6	73.7	80.0
Part-Time	0.7	0.8	10.7	10.8	1.1	0.9	2.0	1.9	5.7	5.4	79.7	80.2
Total	0.9	1.0	12.7	11.6	1.1	0.8	1.6	1.8	6.4	4.8	76.6	80.1
All Full-Time	1.5	1.8	13.1	10.2	1.1	0.6	2.0	1.7	7.1	4.4	75.2	81.2
All Part-Time	0.8	1.0	10.4	10.1	1.0	0.9	2.2	2.0	6.2	5.7	79.4	80.3
Total	1.1	1.5	11.7	10.2	1.1	0.7	2.1	1.8	6.6	4.8	77.4	81.0

Source: AACJC, 1979

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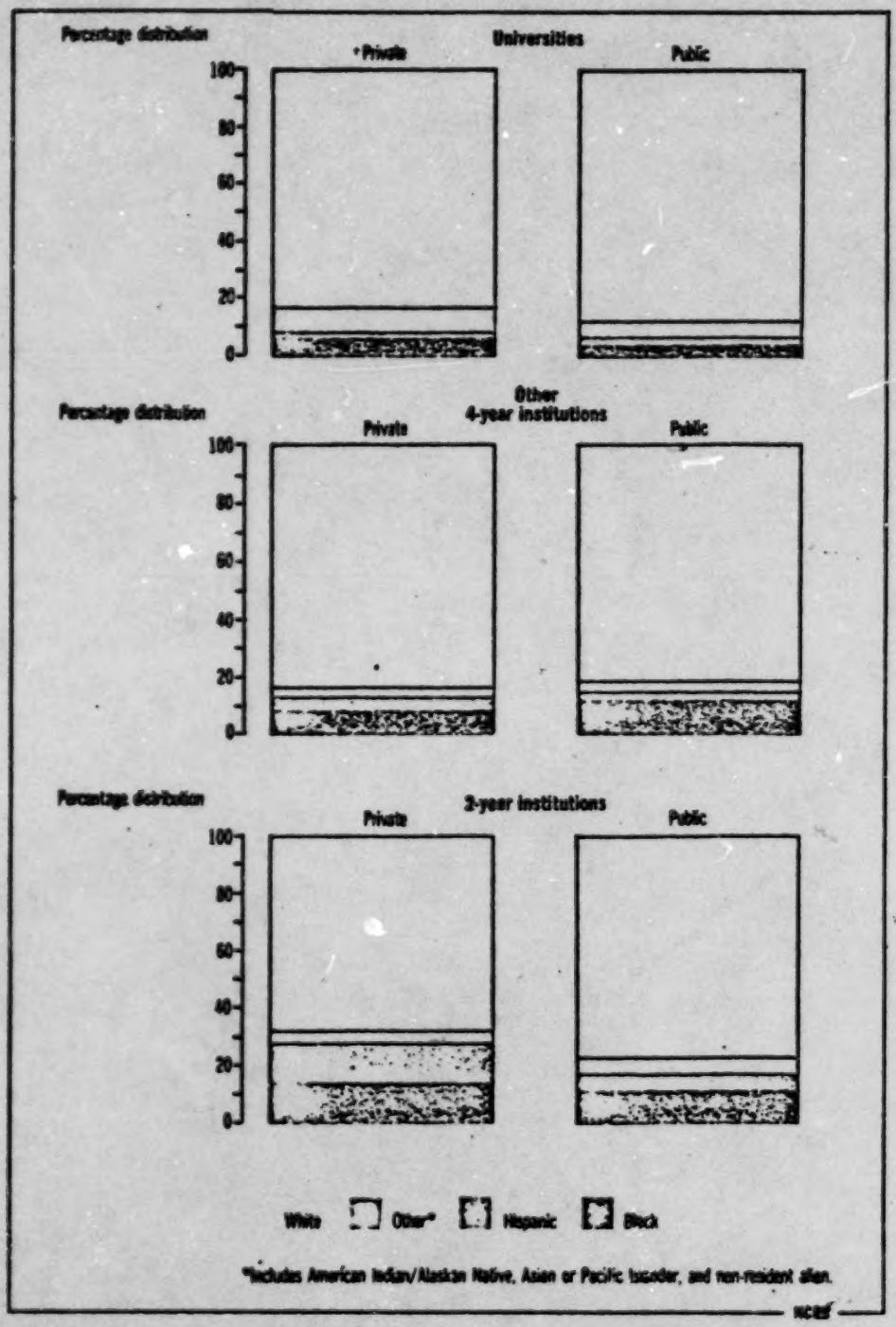
TABLE V

Enrollments in Institutions of Higher Education
by Racial/Ethnic Group



Source: NCES, 1976

Table V illustrates the actual numbers of Table IV in graph form.

Table VI is again a state by state breakdown, this time for 1976. The percentage of black and Spanish origin student enrollment is compared to the proportion of the 18-24 year old population of those ethnic categories in each state. There is a closer relationship between the percentage of blacks in the 18-24 year old population and the proportion enrolled in two-year colleges than there is for Hispanics. The latter are underrepresented on two-year college campuses in nearly all states. On the other hand while there are states where blacks are underrepresented, in a number of states including Delaware, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Missouri, New Jersey, Ohio, and Tennessee it appears that the proportion of blacks in two-year colleges is higher than their numbers in the state's 18-24 year old cohort.

Within some State Master Plans for community colleges trend data on minority enrollments is also available. Maryland is one such state. In 1970 the Maryland State Board for Community Colleges adopted a resolution providing for equal educational opportunity to all regardless of race, religion, sex, or national origin to encourage minority enrollment. In the 1970 census, blacks constituted 18 percent of the State's population. One goal of the State Board was to increase the proportion of black students to a comparable level to their number in the population. In 1969 black students comprised 9.9 percent of the total enrollment. Table VII reports the increase in

TABLE VI

PROPORTION OF THE 18-24 YEAR OLD POPULATION AND PROPORTION OF TWO-YEAR COLLEGE ENROLLMENT WHICH IS BLACK OR OF SPANISH ORIGIN, BY STATE, IN 1976

State	Black		Spanish Origin	
	Total Enrollment	18-24 Year Population	Total Enrollment	18-24 Year Population
Total	11.0%	12.0%	6.2%	5.3%
Alabama	20.8	29.3	0.1	0.4
Alaska	4.2	4.7	1.7	1.8
Arizona	3.6	2.3	11.4	15.3
Arkansas	15.9	20.5	0.3	0.0
California	9.3	9.5	9.9	15.9
Colorado	4.6	3.6	8.5	10.8
Connecticut	8.5	7.6	2.5	3.0
Delaware	15.9	13.9	1.2	1.9
Florida	12.7	17.9	6.7	6.7
Georgia	16.6	31.3	0.4	0.4
Hawaii	1.2	1.1	3.8	2.2
Idaho	0 2	0.2	0.9	4.9
Illinois	15.2	16.4	2.4	3.9
Indiana	9.4	6.3	0.6	1.8
Iowa	2.1	1.6	0.6	1.0
Kansas	6.2	4.8	2.1	2.8
Kentucky	13.8	10.5	0.2	0.6
Louisiana	31.6	27.5	1.4	1.5
Maine	0.3	0.5	0.0	0.5
Maryland	20.0	20.9	0.6	0.5
Massachusetts	3.5	2.6	1.8	0.8
Michigan	13.9	12.5	0.9	1.3
Minnesota	1.2	0.8	0.2	0.7
Mississippi	27.4	37.3	0.1	0.4
Missouri	18.5	14.0	0.5	1.0
Montana	0.0	1.0	0.0	1.0
Nebraska	5.1	3.5	0.8	1.4
Nevada	6.0	7.2	2.4	5.9
New Hampshire	0.4	0.3	0.2	0.5
New Jersey	13.7	10.3	3.3	5.5
New Mexico	2.7	1.6	15.7	34.1
New York	12.7	13.5	6.1	7.2
North Carolina	20.1	25.5	0.4	0.0
North Dakota	0.2	0.4	0.1	0.4
Ohio	14.2	10.1	0.7	1.3
Oklahoma	9.1	8.1	0.8	1.8
Oregon	1.3	1.5	1.1	2.1
Pennsylvania	10.6	9.3	0.9	1.0
Rhode Island	2.0	3.4	0.3	0.6
South Carolina	28.6	32.2	0.1	0.7
South Dakota	0.2	0.4	0.2	0.9
Tennessee	20.6	17.9	0.3	0.5
Texas	11.6	11.7	16.9	20.1
Utah	0.4	1.1	2.5	3.5
Vermont	0.0	0.2	0.4	1.3
Virginia	14.4	15.6	0.5	0.7

State	Black		Spanish Origin	
	Total Enrollment	18-24 Year Population	Total Enrollment	18-24 Year Population
Washington	3.0%	2.5%	1.6%	2.7%
West Virginia	3.0	2.3	0.1	0.2
Wisconsin	5.3	3.4	0.8	0.9
Wyoming	1.3	1.1	3.2	5.7

Sources: Population data, Policy Analysis Service. American Counsil on Education. Based on unpublished data from the Bureau of the Census. Survey of Income and Education, National Center for Education Statistics.
Enrollment data, Fall 1976, HEGIS Survey.

AACJC, 1979

TABLE VII

Maryland Public Community College Enrollment
by Race

White	Fall 1972	Fall 1974
Full-time	20,310	20,407
Part-time	24,213	32,537
Percent of Total Enrollment	85%	81.8%
Black		
Full-time	2,660	3,485
Part-time	4,460	7,368
Percent of Total Enrollment	13.6%	16.7%
American Indian		
Full-time	41	56
Part-time	60	126
Percent of Total Enrollment	.2%	.3%
Oriental		
Full-time	181	167
Part-time	137	226
Percent of Total Enrollment	.6%	.6%
Spanish Surname		
Full-time	109	120
Part-time	93	187
Percent of Total Enrollment	.4%	.4%
Total		
Full-time	23,301	24,235
Part-time	28,963	40,444

Source: Compiled from MCHE Surveys, Statewide Master Plan for Community Colleges in Maryland, 1973, 1975

TABLE VIII

Washington Community College Headcount Enrollment

by Ethnic Origin

Fall Term 1972 - 1978

Fall	ASIAN AMERICAN	BLACK AMERICAN	AMERICAN INDIAN	CHICANO/MEXICAN AMERICAN AND OTHER SPANISH SURNAMED	OTHER MINORITIES	TOTAL MINORITIES	PERCENT OF TOTAL INDICATING	FOREIGN STUDENTS	WHITE AMERICAN	NOT INDICATED	TOTAL*
1978	2,865	3,897	2,433	2,516	3,377	15,088	10.4	2,130	128,258	24,810	170,286
1977	2,655	4,351	2,324	2,345	2,645	14,320	10.6	1,889	116,237	23,818	159,347
1976	2,490	4,442	2,180	2,359	6,299	17,770	13.9	1,509	108,786	17,897	145,962
1975	2,558	4,319	2,615	2,625	5,734	17,851	13.1	2,769	115,472	15,552	151,962
1974	2,149	4,074	2,264	2,222	3,782	14,491	11.4	1,831	110,342	14,750	141,644
1973	1,648	4,327	2,283	1,258	1,506	11,022	9.2	1,667	107,326	13,820	133,835
1972	1,490	3,309	1,819	1,049	1,251	8,918	8.6	1,347	92,928	15,454	118,647

** Source: MIS-1 State Board for Community College Education

*Academic and Occupational only.

Note: Data collection methods:
1971 through 1975 - 8th day counting plus adds.
1976 through 1978 - rolling 10th day count.

**Council for Postsecondary Education Enrollments, State of Washington, 1978.

black enrollment for Fall 1972 and Fall 1974 and provides data on the other minorities. By 1978 black students constituted 19 percent of the community college enrollment in Maryland and were 21 percent of the state's total population (Tschechtelin, 1979).

Table VIII provides data on minority enrollments in Washington's community colleges from 1972-1978. The category "other minority" dropped dramatically between 1976-77 due to more refined data collection which also affected the accuracy of the foreign student data. Prior to 1977 not all foreign students were counted within this category; rather they were included within their individual minority classification. While minority enrollments grew steadily from 1972 to 1976, in the last two years they have declined in relationship to total enrollments.

In looking at enrollment data in two-year colleges it is also important to examine how students are distributed within the curricular areas. However, such data are scattered among various state and institutional reports and do not exist in a unified or cohesive basis. The North Carolina Community College System in its report Ungrading Minorities Patterns and Trends 1970 to 1978 provides a breakdown by ethnicity for the areas of college transfer, general education, technical and vocational. The three major racialgroups include white, black, and Indian. The Hispanic and Asian were not included since their numbers are so small. The source data classified the racial groups as white, black, Indian and other for 1971-72 and 1972-73. After that the designation "other" was classified as Hispanic and Asian. The percentages cited in the following tables and graphs are based on the total enrollment of all the racial groups.

Table IX indicates that while white and Indian students decreased 6.4 percent and 0.3 percent respectively in the transfer program for the seven year period black enrollment increased 6.4 percent. The overall picture of transfer enrollments shows a decrease from 1971-72 to 1973-74, an increase to the highest level in 1975-76 and then a decrease again.

In the general education program the total student enrollment has grown steadily during this period, but the rate of increase was small in the last two years. White enrollment has decreased by 14.1 percent over the seven year period while black enrollment has increased by 11.1 percent. Indian student enrollment has increased by 1.5 percent.

Occupational programs include both technical and vocational curriculum which are categorized into eight groups: Agriculture, Distribution and Marketing, Health, Home Economics, Office Engineering and Science, Trades and Industry and "Other". Table XI indicates that total student enrollment reached its highest level in 1975-76 and has gradually decreased in the last two years. White enrollment decreased by 6.8 percent while black and Indian enrollment increased by 6.1 percent and 1.3 percent during this period. Black enrollment in occupational programs clearly exceeds this group's representation in general education or transfer programs.

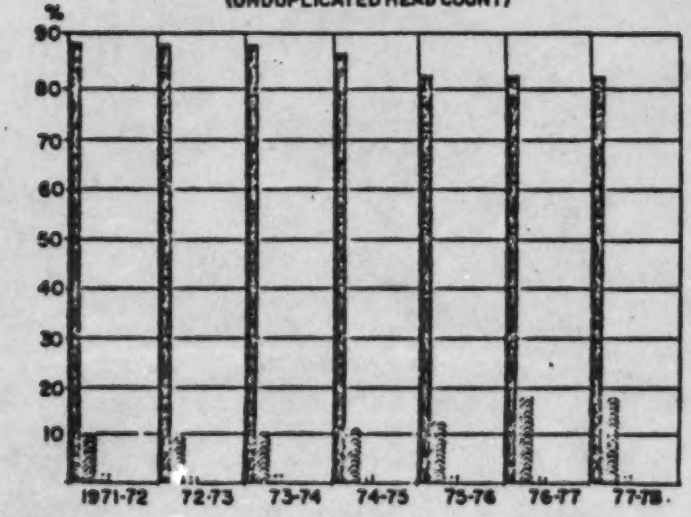
In a 1977 study profiling students in California's community colleges, 24

TABLE IX

Unduplicated Headcount Enrolled in College Transfer Programs 1971-1978, by Race

Year	White	Black	Indian	Other
1971-72	7171	822	61	44
1972-73	6732	745	58	69
1973-74	6540	757	35	101
1974-75	6594	867	22	98
1975-76	7281	1143	20	238
1976-77	7008	1370	22	55
1977-78	6799	1363	30	74

N. C. COMMUNITY COLLEGE SYSTEM TOTAL
COLLEGE TRANSFER
PERCENTAGE OF ENROLLMENT BY
RACE AND YEAR
FULL TIME STUDENT
(UNDUPLICATED HEAD COUNT)



TOTAL NUMBER ALL STUDENTS:

1971-72, 8,098	1973-74, 7,433	1975-76, 8,682	1977-78, 8,266
1972-73, 7,604	1974-75, 7,681	1976-77, 8,455	

Source: Upgrading Minorities Patterns and Trends 1970 to 1978, 1978.

TABLE X

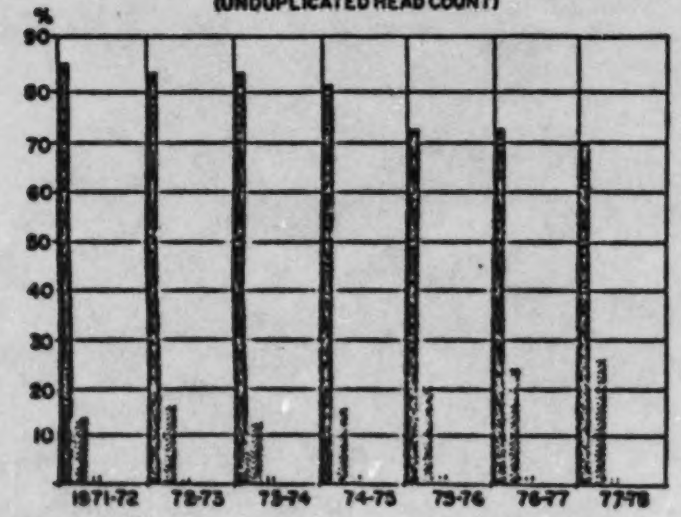
Unduplicated Headcount Enrolled in General Education Programs 1971-1978, by Race

Year	White	Black	Indian	Other
1971-72	896	160	5	3
1972-73	1069	210	4	16
1973-74	1236	208	20	28
1974-75	1639	317	22	34
1975-76	2462	696	49	143
1976-77	2486	801	83	36
1977-78	2371	890	69	57

N. C. COMMUNITY COLLEGE SYSTEM TOTAL
GENERAL EDUCATION

PERCENTAGE OF ENROLLMENT BY
RACE AND YEAR

FULL TIME STUDENT
(UNDUPLICATED HEAD COUNT)



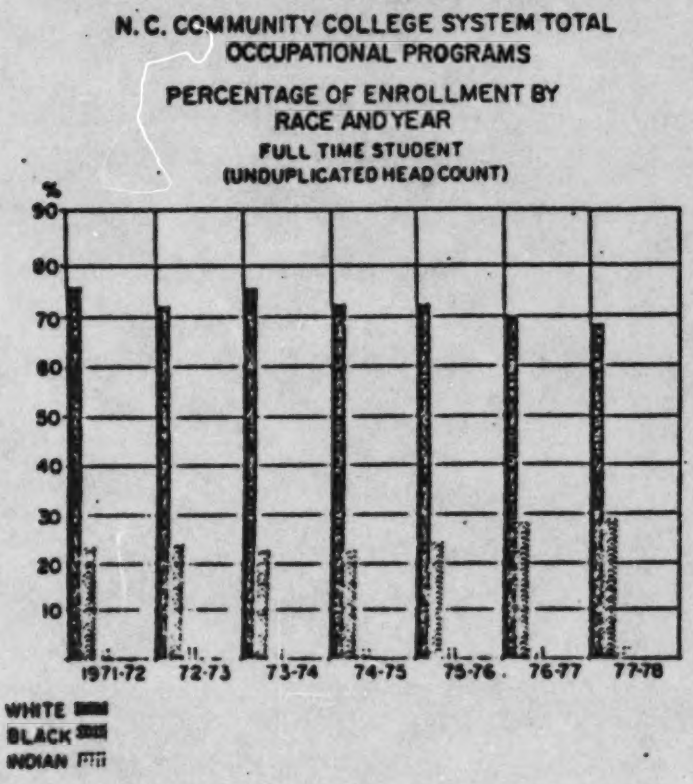
TOTAL NUMBER ALL STUDENTS:
1971-72, 1,065 1973-74, 1,492 1975-76, 3,350 1977-78, 3,397
1972-73, 1,298 1974-75, 2,012 1976-77, 3,366

Source: See Table IX

TABLE XI

Full-Time Unduplicated Headcount Enrollment by Race in Occupational Programs 1971 through 1978.

Year	Black	White	Other
1971-72	7853	30,242	473
1972-73	8812	31,794	774
1973-74	8803	27,425	826
1974-75	11653	35,779	1369
1975-76	14466	42,847	1692
1976-77	15302	37,870	832
1977-78	15666	36,424	1008



TOTAL NUMBER ALL STUDENTS:

1971-72, 29,441 1973-74, 37,054 1975-76, 58,205 1977-78, 53,098

1972-73, 32,478 1974-75, 48,801 1976-77, 54,215

Source: See Table IX

percent of the students enrolled in regular instruction were from minority groups. When vocational students were examined separately, 35.2 percent were of a minority background (California Community Colleges, 1977).

A report on graduates from Prince George's Community College in Maryland (Table XII) illustrates the increased orientation towards jobs and careers among community college students. While no data are provided on the proportion of black students in the college, blacks constituted 17 percent of all graduates in 1977 compared to 12 percent in 1975. Black graduates in the transfer program peaked in 1976 and then declined, but still remained higher than they were in 1975. In contrast, there was a steady decline of white transfer graduates during this time period. While there was an overall increase in the number of graduates in career programs, black career graduates rose by 33 percent compared to 23 percent for whites. What is not apparent from this study is whether such an increase in black graduates in career programs is a consequence of "tracking" or whether it indicates that black students, like their white counterparts, have become more pragmatic in their educational objectives.

In summary the data sets on minority students in two-year colleges are weak. Single program reports are often useful and state and national studies offer only partial information. We do know that proportionately more minority students enroll in two-year colleges than in senior institutions. But we do not have good data on graduates, transfers, or specific program enrollments.

TABLE XII

PRINCE GEORGE'S COMMUNITY COLLEGE

Comparison of Number of Career and Transfer Program Graduates by Race, 1975 - 1977

		June 1975	June 1976	June 1977
Career Graduates	Black	66	78	98
	White	321	353	418
	Other	2	5	18
	Total	389	436	534
Transfer Graduates	Black	45	66	58
	White	450	398	341
	Other	6	13	10
	Total	501	477	409
All Graduates	Black	111	144	156
	White	771	751	759
	Other	8	18	28
	Total	890	913	943

SOURCE: Institutional Research office. (Larkin, 1977)

For several reasons the percent of minorities enrolled in two-year colleges varies from state to state: admissions policies at the state's public universities; the percent of the state's high school graduates who participate in higher education; the breadth of distribution of the state's two-year colleges. However inconsistencies abound. As an example black students are over-represented in proportion to the number of black 18-24 year olds in several states where the two-year college systems are poorly developed (Indiana, Louisiana, New Jersey, e.g.). Is this because the public universities in those states are not widespread either? Or do the black students in those states tend to be from older age groups? Each set of data reveals new questions.

Attrition*

Introduction

Attrition usually refers to students who do not complete the courses for which they enroll in a particular term or who do not enroll for the next term. Withdrawal from all courses or noncontinuation from one term to the next is frequently associated with the label "dropout". Withdrawal from a single course is also of concern to educators. Although some studies interchange terms, "dropout" typically denotes the non-persister or student who does not systematically progress toward a goal as defined by institutions, while "withdrawal syndrome" refers to students who drop out from only one course.

The Problem

Attrition rates reported in the recent literature range from 20.9 to 70.5 percent. The problem for educators who note high attrition rates is how to reduce them. Recognizing that factors exist over which the institution has little control does not assuage the devastation to instructors whose students drop out nor appease boards of trustees who, in a time of increasingly stringent fiscal constraints, are concerned about costs of recruitment, admission evaluation and other services for a constantly changing body of students--particularly in an era of declining enrollment pools of "traditional" students. Strategies which could affect retention statistics such as concentrating on recruitment of those students whose characteristics are similar to proven persisters are clearly unacceptable on other educational grounds.

*See Pezzulo, 1978 for additional references not cited here.

Surprisingly little concern is expressed about the community college's raison d'etre--the students themselves. What difference colleges make to the students they serve is frequently not discussed in the literature on community college student persistence/attrition. Nevertheless, a major California study asserts that "The concept of non-persistence does not imply failure on the part of the students or the colleges." (Knoell, 1976)

Distress Regarding High Dropout Rates May Be Exaggerated

Colleges tend to treat as non-persisters those students who do not reenroll at the same campus for the following term. Yet studies reveal that, in fact, 3 to 12 percent of these former students had graduated. Additional students counted as dropouts had transferred to other two- or four-year institutions.

Some investigators do attempt to analyze persistence in relationship to the goals of students. The California study Through the Open Door recognized "the concept that many students who terminate their enrollment during the first year are in fact 'completers' whose objectives encompassed only one or two courses." Not all institutions appear to accept the validity of such "limited" aims, emphasizing instead completion of degree, transfer, or certificate programs as their criterion for completion. The extent to which "dropouts" are actually "completers" merits further study. While two-thirds of a sample of early leavers at a college in the mid-West reported that they had achieved their stated purpose at the college (Kessman, 1976), a California college study indicated that 60 percent of the students withdrew before meeting their objectives (although one-third of them later reenrolled (Medsker, 1976). It is not clear how much of the difference reported from these colleges reflects methodology or actual variance in

extent of satisfaction. Obtaining reliable information regarding student goals is not always easy. Information from college records may represent forced choices of which none is congruent with the student's actual purpose. Questions regarding intent may be asked before the student has had the opportunity to refine his or her educational goals. Objectives may change over time so that follow-up study participants may be unable to recall accurately their original purpose. Institutions participating in a California study of persistence/attrition reported such data obtained from student records, but many felt that their information might well be invalid (Knoell, 1976). If the true goals of students were taken into consideration, the dropout problem could be placed in better perspective.

The extent to which students treated as "dropouts" are actually "stopouts" also deserves attention. Continuous enrollment may be a luxury for students who nevertheless persevere toward an objective on an intermittent basis.

Students counted as non-returners in follow-up studies often report a high degree of satisfaction with their educational experiences at the colleges they leave. They also indicate they plan to return. Refinement of strategies to facilitate reenrollment of these students may be in order.

Who is the Dropout Student?

According to the various studies it is the part-time students; vocational/technical or business majors; members of ethnic minorities; "older" students (definition varies); women; "special" students' and Protestants who are more prone to dropping out.

Part-time students are leading candidates to become attrition statistics. In a study of 32 California community colleges, 50 percent of the part-time (less than 12 units) students enrolled at the campuses for the first time did not continue into the second semester in comparison with a 21 percent noncontinuation rate for full-time students. The non-persistence rate for daytime students was found to be 30 percent, while the evening student rate was 56 percent; however, part-time/full-time status was a more important source of variance in the rates (Knoell, 1976).

In the California study, sex made a small, albeit statistically significant, difference with a higher rate reported for women.

While "other" students are often reported as high proportions of attrition statistics due to their differing objectives (more frequently short-term) and patterns of enrollment (often part-time and evening), variety of breakdown by age category between 21 and 35 makes specific prediction of attrition by age difficult. Also, in California full-time students between the ages of 19 and 21 appeared to be discontinuing their enrollment in relatively large numbers after one semester.

Religious affiliation was found to be related to attrition in a study of junior college women. Proportionally, Protestants were characterized as most likely to drop out; Catholics to persist; and Jews to transfer.

Academic aptitude is a measure one would expect to be associated with student attrition and retention. However, recent communityc ollege studies have not contributed much information to promote understanding of the relationship. Analysis of academic achievement factors reveals that it is not only the academically poor student who drops out. Although in the California sample about one-third of the students who completed only one term would have been in academic difficulty had they persisted, 43 percent who discontinued after one term earned GPA's of "B" or better (Knoell, 1976).

Additional factors associated with student attrition are low self-concept of ability, high debilitating anxiety, low internal reinforcement control, and lack of goal and value clarity.

Reasons for Attrition

What are the students' reasons for leaving college (in addition to transfer or goal completion)? Explanations vary. At one college reasons are "for the most part, personal." Another reports that most withdrawals were for stated reasons over which the college had little or no control. Financial problems, full-time employment, and job conflicts are frequently reported. Apparently students are forced to favor financial stability through employment over pursuit of educational goals. One study suggests that no single reason, such as academic difficulty, could be isolated to explain students' reasons for non-return. The same study found "disappointment with program

of study" to be a more frequent reason for new students than for continuing students and appears to be one of the few studies to have considered this factor. (Jackson & McMillan, 1976)

In a study focused primarily on attrition at four-year institutions, it is suggested that persistence reflects involvement (Astin, 1975). The supposed easy access to community college education is said to be equated with a minimal investment of energy. Consequently, in two-year colleges, dropping out involves minimum disruption of the student's life style.

Possible Solutions

What makes a difference? Unfortunately, many documents which report innovative strategies for working with students (instructional methodology or counseling techniques, for example) do not include information regarding the impact of those methods on attrition/retention rates.

Following are some suggestions from the literature regarding methods of reducing attrition and withdrawal. A learning skills center program in the areas of basic math, basic English, accounting, business, and chemistry significantly lowered dropout rates for students who used the services (Cohen, Benjamin & Olson, 1977). Modules, audio-tutorials and contracts were three components of an integrated system of instruction at a community based,

performance oriented people's college that reduces attrition (Parsons, 1975). In a general biology course, a traditional lecture method combined with evaluation by frequent short quizzes produced the lowest rate of attrition when compared with other methods of instruction and evaluation (Belzer, 1975). One proposed method for reducing course withdrawal was an informational pamphlet describing instructional methods and course requirements.

Minority Attrition

Pertinent studies were reviewed to examine minority student attrition rates. The data show mixed results. Several studies reveal no difference between minority attrition rates and minority proportion of the student population (Hall, 1974; Knoell, 1976; Stein, 1976; Wetzel, 1977). Other studies did provide evidence that non-returning Blacks and Hispanics exceed their proportion of the population (de los Santos, 1978; Durham, 1976; Gorter, 1978)

Table XIII

Mercer County Community College, New Jersey
Fall 1977 - Spring 1978

	Percentage Enrolled	Percentage of Non-returning
White	71	73
Black	20	13
Hispanic	3	1
Other	1	2

Source: Gorter, 1978

Knoell (1976) particularly found slightly higher minority withdrawal in California community colleges during the term than after the term. MacMillan (1969) in a study of persistence at twenty-three community colleges also identified race as a crucial factor. A recent study in Maryland (Tschechtelin, 1979) showed that at the end of three and one half years after entry black students had completed 27 credits compared with 33 credits for whites. This suggests that black students attend for a shorter period of time. Clark (1975), however, found that Mexican-American students at Reedley College (California) showed greater persistence than the non-Mexican-American students (5% and 8% withdrawals, respectively).

Clark (1975) attributed the pe rsistence among Mexican-Americans to a combination of effective recruiting, peer advising, financial aid, and other support services. The importance of these services is supported in other studies (Durham, 1976; Hall, 1974), although Hall maintains that 80 percent of students (both minority and non-minority) report that nothing could prevent their withdrawal. Various minority groups rate college services differently. A survey by DeVault & Lee (1978) at Austin Community College in Texas indicated that blacks considered tutoring the most important service, financial aid was rated highest by Hispanics, and veterans services and learning labs were most highly rated by white students. Table XIV details reasons for withdrawal as rated by various student groups at Los Angeles City College.

Conflicting job hours, personal problems, and insufficient funds were stated reasons for withdrawal by blacks, relatively more often than other groups. Orientals were less likely to report "insufficient funds" and more likely to cite "another school" as reasons for withdrawal (Tabel XIV).

Table XV indicates that the number of withdrawals by ethnic background

TABLE XIV

Reasons for Withdrawal, by Ethnic Background (in percents)

	Black				Caucasian				Mex-American				Oriental				Other			
Reason	1975	1974	1973	1972	1975	1974	1973	1972	1975	1974	1973	1972	1975	1974	1973	1972	1975	1974	1973	1972
Armed Forces	1.9	3.6	2.4	0.0	0.8	1.1	0.8	1.3	0.0	---	2.4	1.8	0.0	4.2	4.3	5.6	0.0	---	1.3	---
Insufficient funds	18.1	16.6	20.0	21.4	12.6	9.2	12.4	17.6	12.0	5.1	7.3	16.4	2.0	6.9	3.2	4.2	16.7	12.5	5.3	---
Personal illness or accident	13.3	8.6	10.3	17.3	15.8	14.1	12.2	10.5	8.0	20.5	17.1	17.3	8.2	5.6	5.4	4.2	12.5	10.9	10.7	---
Family illness or accident	6.7	10.8	12.4	8.7	8.7	4.3	6.1	5.9	8.0	2.6	7.3	3.6	4.1	5.6	5.4	6.9	4.2	10.9	8.0	---
Transportation	6.7	5.0	6.7	8.1	4.7	3.2	4.5	5.0	4.0	12.8	7.3	14.5	2.0	1.4	5.4	1.4	8.3	---	4.0	---
Full-time work	32.4	26.2	32.1	32.4	26.8	31.9	37.3	32.6	24.0	30.8	24.4	38.0	26.5	19.4	35.5	33.3	20.8	35.9	21.3	---
Another school	8.6	13.7	16.4	8.1	10.2	11.9	10.1	9.6	12.0	10.3	12.2	12.7	20.4	18.1	28.0	22.2	10.4	14.1	17.3	---
Schedule	2.9	4.3	4.9	6.4	3.2	5.4	4.5	3.8	20.0	14.4	20.4	7.3	8.2	1.4	11.8	5.6	2.1	6.3	4.0	---
Poor Grades	3.8	5.8	6.1	6.9	4.7	2.7	3.2	5.0	0.0	5.1	4.9	12.7	0.0	6.9	7.5	6.9	6.3	4.7	2.7	---
Family moving	5.7	5.8	4.2	3.5	4.7	4.3	3.2	5.9	4.0	7.7	2.4	5.4	2.0	---	2.2	2.8	4.2	4.7	5.3	---
Job hours	20.0	16.6	17.0	11.0	11.0	14.6	15.0	12.6	4.0	14.4	9.8	10.9	16.3	11.1	12.9	13.9	14.6	15.6	13.3	---
No study time	11.4	10.1	12.7	12.1	6.3	15.7	18.2	14.2	4.0	5.1	4.9	18.2	10.2	20.8	12.9	12.5	8.3	10.9	10.2	---
Personal problems	25.7	32.4	18.2	26.0	22.8	23.2	12.6	22.2	12.0	30.8	24.9	36.4	18.4	27.8	18.3	22.2	41.7	17.2	20.0	---

Source: Stine, 1976

TABLE XV - Number of Withdrawals from Los Angeles City College by Sex and Ethnic Background, Spring 1975, Spring, 1974, Spring 1973

	Spring 1975			Spring 1974			Spring 1973		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Black	48	57	105	71	68	139	68	97	165
Caucasian	63	64	127	87	98	185	126	121	247
Mexican-American	12	13	25	22	17	39	21	20	41
Oriental	16	33	49	35	37	72	54	39	93
Other	24	24	48	30	34	64	40	35	75
TOTAL	163	191	354	245	254	499	309	312	621

TABLE 1a - Ethnic Distribution (in percents)

	Spring 1975			Spring 1974			Spring 1973			All LACC
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Spr. 1975
Black	29.5	29.9	29.7	29.0	26.8	27.9	22.0	31.1	26.6	32.3
Caucasian	38.7	33.5	35.8	35.5	38.6	37.1	40.8	38.8	39.8	34.6
Mexican-American	7.4	6.8	7.0	9.0	6.7	7.8	6.8	6.4	6.6	15.4
Oriental	9.8	17.3	12.6	14.3	14.6	14.4	17.5	12.5	15.0	15.1
Other	14.7	12.6	13.6	12.2	13.4	12.8	12.9	11.2	12.1	2.7
TOTAL	163	191	354	245	254	499	309	312	621	

TABLE 1b - Sex Distribution (in percents)

	1975	1974	1973	All LACC - Spring 1975
Male	46.0	49.1	49.8	48.5
Female	54.0	50.9	50.2	51.5

Source: Stine, 1976

at Los Angeles City College parallels the proportion of students in each ethnic group that enrolled. This finding is apparent by sex and existed over the three school years 1973-1975. A 43% drop occurred during that period in the total number of withdrawals with a slight drop in the percentage of Caucasian non-persisters and a slight increase in the percentage of Black non-persisters.

Table XVI represents completions, failures, and withdrawals by ethnic categories and by discipline at Okaloosa-Walton Junior College (Florida). Blacks and other minorities are the most likely to complete home economics, office, trade/industrial, technical, post high school and elementary/secondary curriculums, while whites are more likely to complete disciplines in the traditional liberal arts areas (Durham, 1976).

Table XVII is a flow-chart detailing the college attendance of first-time, full-time students in a two-year associate degree or certificate programs. This student group may not be typical of the entire two-year college population, since the community college enrolls many part-time and non-degree students. This skewed sample may account for the high number of transfer students. The chart does indicate that sutdents who do receive two-year college degrees are more likely to transfer than those who receive nc formal award and most full-time, degree students who receive associate degrees do so within two years of enrolling. The students do not appear to have been followed

TABLE XVI

Rates of Completions, Failures, and Withdrawals

Okaloosa - Walton Junior College, Florida

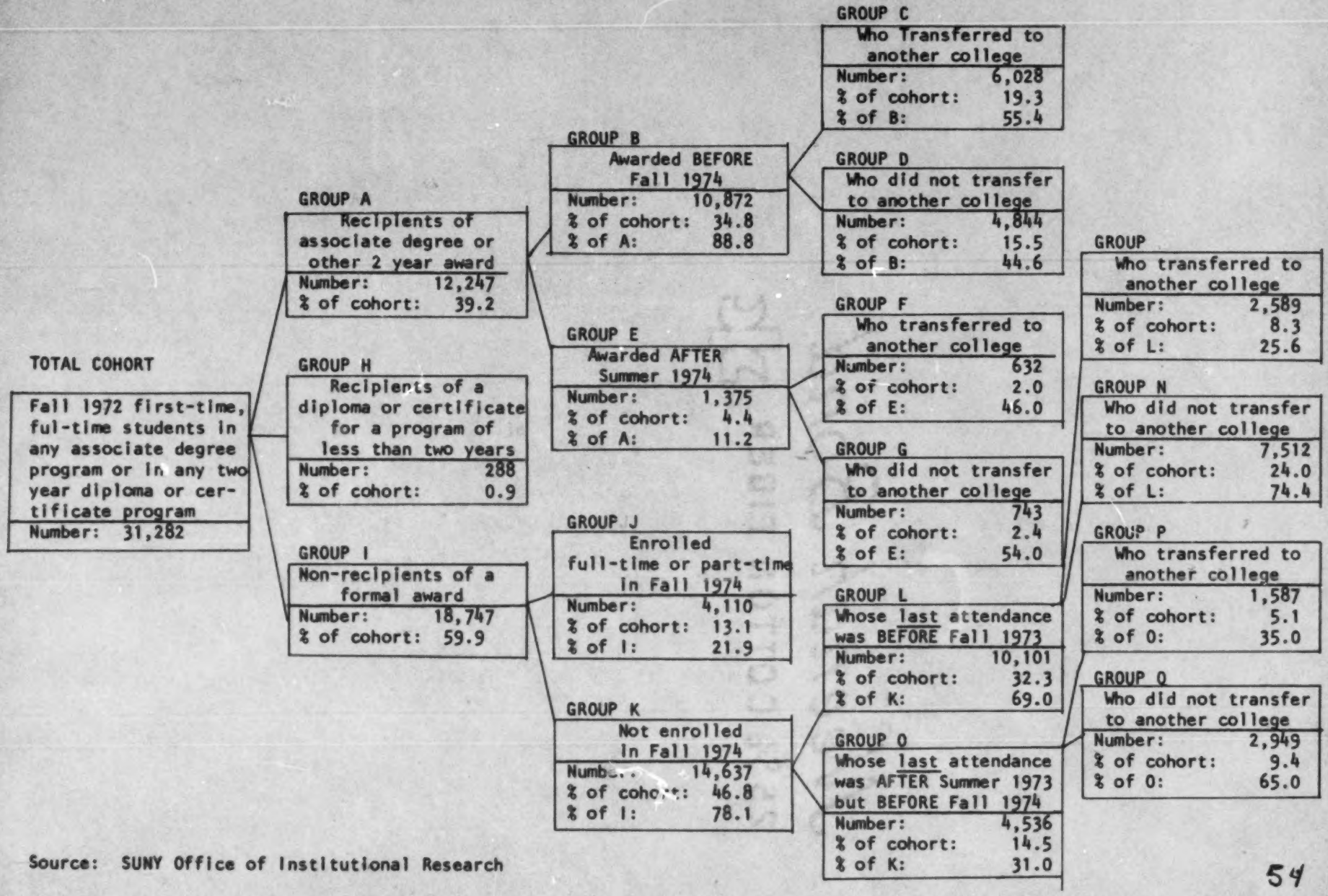
No.	Discipline Title	Completions			Failures			Withdrawals		
		Whites	Blacks	Others	Whites	Blacks	Others	Whites	Blacks	Others
1004	Biological Science	62.7*	34.8	60.5	15.0	32.6*	10.5	12.3	6.5	28.9*
1008	Education	87.2*	85.6	83.9	3.6	7.6*	6.5	6.6	6.8	9.7*
1010	Fine/Applied Arts	84.9	65.9	88.6*	5.3	6.8*	1.1	6.3	20.5*	6.8
1011	Foreign Language	73.3	50.0	85.7*	6.8	25.0*	--	13.7	--	14.3*
1015	Letters	76.1*	61.9	73.7	8.3*	7.1	5.3	13.2	26.2*	15.8
1017	Mathematics	62.9*	57.1	55.2	14.4	38.1*	17.2	17.3	4.8	20.7*
1019	Physical Sciences	79.9*	50.0	75.0	6.6	26.0*	12.5	11.8	25.0*	12.5
1020	Psychology	86.1*	40.0	71.4	4.7	--	14.3*	7.8	50.0*	14.3
1022	Social Sciences	78.5	66.1	89.5*	8.6	20.3*	--	10.3	12.7*	10.5
2200	Distributive	72.3	60.5	90.6*	11.6	14.0*	9.4	12.0	18.6*	--
2300	Health	87.5*	75.0	--	6.9	25.0*	--	6.9	--	--
2400	Home Economics	78.0	72.2	100.0*	7.0	8.9*	--	13.4*	5.9	--
2500	Office	75.6	47.8	81.6*	9.5	20.2*	18.4	12.9	29.1*	--
2600	Trade/Industrial	87.4	71.2	100.0*	4.0	18.7*	2.6	14.6*	8.5	12.6
2700	Technical	74.2	83.1*	89.0	7.7*	7.0	3.4	14.1*	8.5	12.6
3100	Post High School	79.8	59.3	82.6*	6.4	18.5*	5.2	14.0	22.2*	11.3
3200	Elementary/Secondary	75.6	81.7*	69.8	3.0*	2.1	1.6	28.9	22.0	32.3*
Mean		78.1	62.5	79.8	7.6	17.3	8.3	12.7	18.3	16.3
S		6.8	14.4	12.5	3.3	10.0	10.6	5.1	11.6	7.3

*Asterisk indicates highest rate for completions, failures, and withdrawals

Source: Durham, 1976

TABLE XVII

Attrition/Retention in Two-Year Programs at SUNY Community College



Source: SUNY Office of Institutional Research

past Fall 1974, which does not allow a determination of the number of non-persisters who reenrolled at a later data. With the non-traditional attendance patterns of community college students generally (Cohen, 1979), longitudinal data are especially essential in judging attrition rates.

In summary, attrition is an area that raises concern among two-year college officials. They seek reasons for student withdrawal and develop programs to assist students in academic or student service areas, although no definitive answers appear to emerge. For the two-year college, defining the "dropout" is even more problematical than it is for other types of higher education institutions, since student objectives are less apt to include obtaining a formal degree or certificate. Non-traditional objectives are held by part-time students and the number of "older" students who tend to have higher attrition rates.. Most studies reviewed appear to accept the assumption that dropouts represent failure and persistence equals success so the issue of student objectives is not often considered as a variable.

Although some evidence indicates that ethnic minorities have attrition rates which exceed their proportion of the student population, a number of studies contradict this conclusion. Limited data also indicate that compared to white students, Black students are more likely to complete lower status occupational programs than the traditional liberal arts transfer programs. Yet, the most striking outcome of the literature review in the area of minority attrition is the lack of any studies with adequate generalizability to allow understanding of what situation really exists at the two-year

college and what can be done about it. Pantages and Creedon (1978) completed a fairly thorough literature review of attrition studies 1950-1975, but a notable lack of information on the two year college was evident, and, it has not been resolved as to the applicability of conclusions at four-year colleges to the two-year college.

Special Programs for Minorities

In 1971 Morrison (1973) conducted a study which explored the extent to which public community colleges offer special courses, programs, or services for educationally disadvantaged minorities. The following tables describe Morrison's findings:

TABLE XVIII

Instructional Services for the Minority Group Academically Disadvantaged in Community Colleges

Instructional Services	Percent Affirmative	Weighted N
Use of programmed instruction	72	482
Use of reduced course loads	86	640
Liberalized probationary or readmission practices	58	388
Attention to development of study skills	89	628
Stress communication skills	100	774
Stress reading skills	100	732
Stress writing skills	91	652
Stress speaking skills	77	452
Stress listening skills	83	544
Stress the utilization of traditional English	58	358
Stress understanding of student's own dialect	52	352
Develop special courses in ethnic studies	17	102

TABLE XIX

Special Recruitment Services for the Minority Group Academically Disadvantaged in Community Colleges

Services	Percent Affirmative	Weighted N
Recruitment teams	36	266
Use of community contacts	75	464

Special Guidance and Counseling for the Minority Group Academically Disadvantaged in Community Colleges

Services	Percent Affirmative	Weighted N
Special guidance and counseling	89	554
Special tutoring	91	664
Use of regular faculty in tutoring	95	440
Use of regular students for tutoring	77	272
Use of advanced students in program for tutoring	65	212

The community college literature is replete with descriptions of the special programs that Morrison surveyed.* Curricular efforts seem the most discussed approach to stimulating minority student interest and meeting their needs. Ethnic studies which treat the culture and history of a particular ethnic group is one approach to establishing curriculum relevance (Carranza, 1976; Castellano, 1977; Clark & Nieto, 1976; Fernandez, 1970; Gonzalez, 1976; Haas, 1974; Hinrichsen, 1976; Lombardi, 1971; Negrete, 1973; Regan (Ed.)1976; Sutherland, 1975; Williams, 1977). Most of

*See Appendix for additional reference to programs for disadvantaged students that are not cited in this discussion.

the reports located described programs directed at Mexican-Americans. Haas (1974) studies the influence of ethnic studies programs at several community colleges on instructor attitudes and concluded that such programs did not appear to influence ethnic attitudes. Most reports tend to be descriptive rather than evaluative.

In a nationwide study of humanities curricula, the Center for the Study of Community Colleges found that ethnic studies accounted for only one percent of the total humanities student enrollment and course offerings. Fifteen percent of the colleges in a sample of 175 reported offering an ethnic studies course and between 1975 and 1977 a six percent drop occurred in the number of courses and a .4 percent increase in student enrollment. This appears to signify a slowdown in the rapid development in black studies noted by Lombardi (1971).

The other appraoch to meeting minority needs through the curriculum is tailoring a particular subject area, e.g., journalism, business administration, to the needs or interests of an ethnic group (Embree & others, 1975; Jones, 1975; Maccani, 1977; Sutherland, 1975; Wiseman & Cassin, 1978). Skagit Valley College in the State of Washington, for example, received federal funds to provide vocational training to local Indian tribes (State of Washington, 1971).

Remedial programs have assumed a large portion of the curriculum of many colleges, e.g., the Center for the Study of Community Colleges, found that one-third of the mathematics courses offered in a nationally-representative sample of colleges were remedial (Beckwith, 1979). Some developmental studies

are designed with specific educational disadvantages of ethnic minorities in mind (Bell, 1979; Holiman, 1977; Wallace, 1978; Williams, 1978). Moore (1976), however, criticizes remediation efforts because "many of them tend to minimize the student's contact with the teacher" (p. 29).

One further effort to meet the needs of a particular minority group can be found in the creation of special colleges. The most notable examples of special community colleges are Oglala Sioux Community College (North Dakota), Haskell Indian Junior College (Kansas), Navajo Community College (Arizona), and Bacone Community College (Oklahoma) (Galluz, 1979; Janssen, 1975; Status Study of Oglala Sioux Community College, 1978). These colleges have a defined mission to serve American Indian students, while other colleges which have defacto minority student populations, e.g., Malcolm X College (Illinois), Hostos Community College (New York), also design most of their programs toward the needs of the special constituency.

Student services are often modified to accomodate special needs of ethnic minorities, such as special tutoring (Kinnebrew, 1976), counseling (Gillsdorf, 1978; Greco & McDavis, 1978; Hernandez, 1977; Logins & Adams, 1972; Savcedo, 1977a, b; State of Washington, 1971), recruiting programs (Hernandez, 1975; State of Washington, 1971). Counseling, for example, may include an attempt to enrich minority student self-concept (e.g., Hernandez, 1977; Savcedo, 1977a) or may be structured as a guidance program to help with educational goal-setting and study skills development (e.g., Savcedo, 1977b). Gillsdorf (1978) through a laboratory experiment in a

community college in the Southwest concluded that ethnic students appear more likely to initiate a counseling relationship with a counselor of the same ethnic group, although the researcher acknowledges the research that negates, as well as corroborates, this finding. Moore (1976) maintains that counseling may not have the positive effects that many college officials attribute to it. Many students are counseled out of programs to which they aspire and Moore quotes Brazziel to illustrate the basis of the distrust that high-risk students may feel towards both personal and guidance counselors: "There is an axiom, for example, that every successful college-trained black adult who was poor had trouble with his guidance counselor and he made it in spite of determined efforts of guidance personnel to steer him into semi-skilled or unskilled work" (Brazziel, 1970, p. 748).

More ambitious programs encompass both educational and student services. An example of this type of program is the Extended Opportunity Programs and Services (EOPS), which provides funds for tutoring, counseling, recruiting, special instructional programs, as well as various forms of student financial aid (Brossman, 1974; Lee & West, 1975). In the California Community Colleges in 1972, for example, three-fourths of the students served by EOPS were ethnic minorities (Brossman, 1974). Lee & West (1975) compared small samples of EOPS students who received financial aid only and who received full supportive services, including tutoring and counseling. They found that the latter students demonstrated significant GPA increases, while the former group did not. Another approach to providing overall services to minority students was

the formation of a consortium of twelve community colleges in the Puget Sound region of Washington State (Block, 1976). State funding has addressed minority student needs through a variety of services (Iowa Dept. of Public Instruction 1972-1978; State of Washington, 1971). In one instance court action provided the impetus for initiating services for Spanish-speaking students at Contra Costa College, California (Joseph Crofts vs. Board of Governors of California Community Colleges, 1977).

To assess the needs of local ethnic minorities, colleges, districts, and state systems conduct need surveys (Charles & Perkins, 1978; Garay & others, 1976; Hepburn, 1977; Robinson & Shearon, 1978; Smith, 1977). This may be accomplished through assessing community demographic and historical characteristics (e.g., Hepburn, 1977; Smith, 1977) or surveying enrolled minority students (e.g., Robinson & Shearon, 1978).

Although Haas (1974) found that ethnic studies programs themselves do not appear to change faculty attitudes about minority students, various efforts are reported which attempt to make faculty and college officials cognizant of the problems specific to minority students (Goldstein & Wood, 1975; Minority Awareness: programming for success, 1976; Moore, 1976; A program to prepare college and university officials..., 1970; Southern Regional Educational Board, 1976). The conferences and staff training workshops described sought to equip faculty with information and resources to implement special programs and, thereby, effectively utilize funding designated

for special programs.

In summary, the intent of all the special programs instituted by the community colleges for minorities is to attract these students to the college and once they are enrolled provide the type of assistance which will help them realize their educational objectives. The most successful special programs appear to be those that include both educational and student service components, such as EOPS in California. The effectiveness of innovative counseling efforts and methods when used without the other dimensions is harder to document and even more difficult to replicate in other institutions. Success in these student service programs seems to depend in large part on the type of staff involved in them.

Various curricular programs have been established within community colleges either specifically for or with minority students in mind. However, the reports in the literature provide few common criteria to define the success of these curricular innovations and the studies that exist are more descriptive than evaluative. The trend seems to be away from programs focusing on ethnic studies and toward developmental studies particularly in reading skills and math.

Occupational Programs

One of the prevailing notions held by students, their parents, and society in general is that the occupational or career programs are less prestigious than the transfer or college parallel program. As a corollary to the above a common charge has been that the occupational programs served primarily as a track for the poor, the disadvantaged, and the low aptitude students. However, such a view of the occupational curriculum fails to take into account a number of changes that have been in progress. The following section will discuss some of these changes.

A recent ERIC topical paper, Resurgence of Occupational Education (Lombardi, 1978), details the phenomenal curriculum reorientation in the public two-year colleges since the late 1960's. Prior to this time there was a decided preference for transfer education. However, recent enrollment figures indicate that the pendulum has swung and occupational programs are now favored. Data from various state reports show that the rise in occupational programs has been at a higher rate than either total enrollment or transfer enrollment.

In six of nine states listed in the Table XX occupational enrollment as a percent of total enrollment increased while transfer enrollment as a percent of total enrollment decreased.

In addition to the above enrollment figures the shift can be seen in the number of new courses and curricula being implemented and proposed by individual institutions and state planning commissions. For example, in Maryland over

TABLE XX

OCCUPATIONAL AND TRANSFER ENROLLMENTS
AS A PERCENT OF THE TOTAL ENROLLMENT

State	Year	Total	Occupat	% Total	Transfer	% Total
			Headcount			
Florida[a,b]	1970-71	107,630	25,980	24	78,940	73
	1975-76	169,790	47,400	28	105,280	62
			Headcount			
Hawaii[c,d]	1969	8,200	3,660	45	3,170	39
	1976	20,880	9,090	44	9,980	48
			Headcount			
Illinois[e]	1968	89,530	23,450	26	49,750	56
	1976	325,830	108,330	33	107,050	33
			FTE			
Iowa[f]	1968-69	21,440	7,860	37	9,790	46
	1975-76	43,770	21,080	48	10,580	24
			Headcount			
Massachusetts[g]	1967	11,620	5,090	44	5,360	46
	1974	28,110	16,540	59	9,000	32
Mississippi[h]	1972-73	33,420	10,150	30	16,230	49
	1975-76	45,750	14,980	33	20,400	45
			FTE			
Nevada[i]	1972	1,430	800	56	480	34
	1976	4,980	2,130	43	2,150	43
			Unduplicated Headcount			
Oregon[j]	1968-69	80,940	33,860	42	22,740	28
	1975-76	201,770	72,020	36	40,760	20
			FTE Fall Quarter			
Washington[k]	1967	42,120	11,260	27	28,830	68
	1974	80,200	37,650	47	41,940	52

Sources:
[a]
[b] Florida State Department of Education, 1972, p. 39.
[c] Florida State Department of Education, 1977, p. 28.
[d] University of Hawaii, 1974.
[e] University of Hawaii, 1976, p. 9.
[f] Illinois Community College Board, 1976b, p.5.
[g] Iowa State Department of Public Instruction, (1976), P. 12.
[h] Matrix for Planning, 1975, p. 39.
[i] Mississippi State Department of Education, 1975. p. 2.
[j] Donnelly, 1977.
[k] Oregon State Department of Education, 1977, p. 5.
Washington State Board for Community College Education, 1975, Table 14.

as compiled in Lombardi, 1978.

the next five years the community colleges are proposing 244 new occupational programs in contrast to 11 new programs projected for the liberal arts or transfer (Maryland State Board of Community Colleges, 1977), and in Illinois the number of vocational curricula in 1975 was 1,871, 66 percent of the total curricula (Illinois Community College Board, 1976). This upsurge in occupational programs is attributable to many causes. Among those listed by Lombardi are: changing economic conditions, particularly the high unemployment among four-year college and university graduates; the Vocational Education Act of 1963 and the 1968 Amendments; the Career Education Movement; the increase in the number of nontraditional students; and the transfer to or the absorption by the two-year colleges of adult education programs and post-secondary occupational programs in the secondary schools (1978, p. 15).

One outcome of the increased popularity of occupational programs is that many programs have more applicants than there are openings. This is true for technical programs such as air conditioning and refrigeration, welding, and auto mechanics (Morgan, 1977) but it is most accute in the health care programs. For example, for the nursing program at City College of San Francisco in 1977 there were 600 applicants for 96 positions (Brown, 1979).

Many college catalogs state that admission to the college does not mean admission to certain programs and spell out how selective they are. Not only do most health care programs require certain prerequisites, a given grade point average, and other criteria such as personal interviews, evidence of good physical and mental health and in some cases a given score on standardized tests, some use a lottery to select students from the qualified pool

and place the others on a waiting list. The result is that while the transfer program continues to operate on an "open-door policy," the over subscribed occupational programs have become very competitive and now have selective admissions.

While focusing specifically on nursing programs, Brown (1979) found that many allied health programs nationwide were over subscribed. In addition, she found that not only were ethnic minorities consistently under-represented in all the nursing programs, regardless of geographic,location but there was no incentive or plan offered by any of the programs to recruit qualified minorities. One of the recommendations emerging from this study is that programs hire a full-time counselor to, among other things, actively recruit qualified ethnic minorities.

To conclude, it is no longer accurate to consider occupational education as part of the "cooling-out" process whereby certain groups of students are kept out of the academic/baccalaureate program. Rather now that these programs have become selective they <u>may</u> be the ones that are even more difficult for minority students to enter.

Open Access/Barriers to Minority Participation and Success

In a nationwide study of the accessibility of higher education in 1968, Willingham (1970) defined five levels of access. Level 1, open access colleges, consisted of 90 percent public two-year colleges and Willingham found that one out of five students enter college at this level. Level 2 colleges were almost open door institutions. Their selectivity resulted from lack of space rather than institutionally-imposed admission criteria or barriers. This level was also composed mostly of public two-year colleges and 25 percent of college students enrolled at this level of accessibility. Level 3 was the lowest level where scholastic aptitude and higher tuition may be barriers; a few two-year colleges fall into this group. The other two levels demonstrate increasing degrees of selectivity. Regional variability exists in the distribution of free-access colleges (Ferrin, 1971; Willingham, 1970).

Table XXI shows the changes between 1958 and 1968 that Ferrin uncovered by region and ethnic group. Ferrin (1971), who expanded Willingham's study to include data from 1958, as well as 1968, underscores the increase in the proportion of students who enroll in free access colleges. He noted a 32 percent increase in the number of free access colleges between 1958 and 1968 and, while two and four year free access colleges enrolled about the same number of students in 1958, by 1968 the two-year colleges enrolled four times as many students.

TABLE XXI

Changes in the percentage of regional populations within commuting distance of a free-access college, by race, 1958 and 1968

Region	Percentage within commuting distance							
	White		Black		Brown		Total	
	1958	1968	1958	1968	1958	1968	1958	1968
Northeast	15	38	7	37	--	36	15	38
Midwest	30	33	35	39	--	--	31	33
South	35	50	36	52	60	40	36	50
West	43	51	52	48	45	55	44	51
United States	29	42	33	47	48	47	30	42

-Base too small for reliable estimate

Source: Ferrin, 1971.

Ferrin defines accessable higher education: it must 1) be relatively inexpensive, 2) admit the majority of high school graduates, and 3) exist in such proximity that neither geographical nor psychological distance constitutes a major barrier. Ferrin places the two-year college as the purveyor of mass post-secondary education.

According to Ferrin's findings, in 1968 blacks and whites living in small metropolitan areas and browns living on the outskirts of town had the best chance of living near a free access institution. Residents of rural areas, regardless of race, had the worst chance. Minority groups benefitting most from the establishment of new colleges in the 10 year period investigated were Puerto Ricans in New York City and blacks living in the Northeast. Mexican-Americans profitted least in the West and South. Urbanization

negatively affected college access by minorities in proportion to population, even though the absolute number of accessable colleges increased.

One free access college system that has received much attention is City University of New York (CUNY). CUNY implemented open admissions in 1970 and between 1969-74 "entering freshmen classes showed an almost uninterrupted increase in the number and percentage of Black and Puerto Rican students, with both groups substantially increasing their representation the very first year of open admissions" (Berger & Leaf, 1977, p. 156). Three of the six community colleges had nonwhite freshmen classes of 40 percent or more before open admission; the other three had less than 20 percent nonwhite students. With open admissions the three colleges with 40 percent nonwhite freshmen became predominantly nonwhite, and the other three colleges maintained a 20 - 30 percent ethnic freshmen enrollment. These trends were attributed mostly to geographic location by Berger and Leaf.

Berger and Leaf report further that in a comparison of academic success among open admissions students at the two and four year institutions, higher percentages of these students meet the criteria for success at the two-year colleges than at the four-year colleges; regular students do equally well at both types of institutions. When fourth semester student retention was measured the researchers found that 72 percent of the senior college students compared to 52 percent of the community college students had been in continuous attendance. The evidence from CUNY does not indicate unequivocally that free access does not result in a "revolving door" phenomenon, but it

does show that more students--nontraditional students who in this urban area are largely minority--have the opportunity to benefit from college.

State-level community college planners mandate facilitating universal access either through law as in the State of Washington (Staff report...1975) or through self-instituted goals as part of a master plan (Maryland State Board of Community Colleges, 1975, 1976, 1977). The following exerpt from the Maryland Master Plan shows the goal of promoting equal access and the implementation strategies and progress toward meeting the objective of improving the racial composition of community colleges:

Goal 2 - To provide equal access to community colleges for all Maryland citizens.

Objective 2.1

By 1980, community college enrollment will reflect the same racial composition that exists within the community college service area.

Implementation Strategies

1. Community colleges should develop, implement, and publish affirmative action programs to assure equal educational and employment opportunities and submit them to appropriate State and federal agencies.
2. Community colleges should continue to emphasize developmental programs and services so that the open admissions policy will not become a revolving door for minority students.
3. Where appropriate, community colleges should develop programs designed to meet the special interests of minority students.

4. Community colleges should continue to inform the community of instructional programs and financial assistance available to students.

5. Community colleges should, where possible, provide means of transportation to service areas where large numbers of minority students reside.

6. Community colleges should make every effort to increase the percentage of minority faculty administrators and counselors at the colleges.

Progress Toward Objective 2.1

- All seventeen community colleges have adopted formal programs of affirmative action insuring equal educational and employment opportunities.

- Thirteen community colleges have at least the same minority composition that exists within the college's service area.

- Community colleges systemwide moved from 9.9 percent total black enrollment in 1970 to 18.5 percent in Fall 1976 (an increase of 8.6 percentage points over the five-year period).

- Full-time black enrollment in Fall 1976 (19.5 percent of full-time enrollment) exceeded the 1980 Statewide goal of 17.4 percent set in the Maryland Desegregation Plan.

- From 1970 to 1976, eleven colleges exceeded the 1980 full-time black enrollment projections, two colleges are within 6 percentage points of this projection, and two have substantial progress to make.

Time Frame

By 1978, Maryland community college minority enrollments systemwide will exceed the minority composition of the Statewide total minority population.

(Maryland State Board for Community Colleges, 1977)

Critics of open admissions suggest that it is a vehicle for tracking minority students into the community college where they end up in vocationally oriented programs, while high-achieving white students attend senior colleges which offer them broader options (Berger & Leaf, 1977; Barron, 1972; Medsker & Tillery, 1971) or minority students do not find upwardly mobile technical and career areas, such as allied health, science, and engineering technology programs as accessable (Jackson, 1979). Yet, Godbold (1979), for example, points out that "some blacks and other minorities who enroll would not be attempting any education beyond high school were it not for the community college" (p. 24). In addition, such critics of community college attendance by minorities also neglect to look at the criteria for enrolling in community college occupational programs. Often, while the college itself may have open access, the vocational program may have relatively stringent criteria for admissions.

It can not be denied that minorities may face barriers in achieving both college attendance and academic success. The literature enumerates these barriers. Allen (1971) provides a taxonomy of higher education barriers and interventions for minority and low income students, although she does not sort out the barriers that may be encountered in different types of higher education institutions.

Medley and Johnson (1976) examined barriers preventing black students from

entering college at all. Their survey of a small sample of black high school seniors found that those students who planned not to go to college (45% of the sample) responded to a question asking for the most important reason they would not attend as follows: money, 36.9 percent; grades, 5.9 percent; not smart enough, 15.5 percent; do not want to do, 41.7 percent. Barriers to access commonly cited are finances, academics, motivation, and geography (Cardenas, 1974; Colorado State Board for Community Colleges, 1979; Crossland, 1971, DeCosmo, 1976; Ferrin, 1971; Spurlock, 1977). Ferrin points out that if any one of these is perceived as a barrier then it becomes one for that individual. As indicated in the attrition section of this report, these barriers may persist as problems even after the minority student has enrolled and cause the student to withdraw. Different barriers may also arise. For example Lopez and Enos (1972) cite a list of conditions affecting Chicano students in community colleges in California: inadequate high school counseling; hostile, bureaucratic campuses and their Anglo faculty and staff; the relative absence of Chicano faculty and staff; and the familial and economic pressures on the Chicano. (See Table XIV in the minority attrition section for another listing of barriers facing minority students).

One of the barriers discussed most often is finances. Medley and Johnsen (1976) found that nearly one-third of their sample of black high school seniors reported money as the most important reason for not attending college. One-quarter of the students reported that they could not afford college at all and family income considerations appeared to influence female students more than males. At Bronx Community College finances was cited as the main problem for all students, but seemed worse among blacks and Hispanics (Eagle, 1977).

Since many community colleges have no tuition and minimal fees, the major expense for most students is foregone income. This heightens the implications of Robinson and Shearon's (1978) finding that black students in North Carolina community colleges depended primarily on their own resources for financial support. Godbold (1979) maintains that one of the attractive features of the community college is the flexibility and tolerance of nontraditional attendance patterns which allows blacks and other minorities to more easily work while they attend college. The U.S. Bureau of the Census found that 33 percent of two-year college students use employment earnings while attending school; 27 percent receive income from their families and 24 percent from personal savings (AACJC, 1976).

Spurlock (1977) suggests that more effective allocation of aid would benefit minority students. Table XXII shows the nature and extent of financial aid given to academically disadvantaged minority groups from Morrison's (1973) study of a national sample of community colleges. Table XXIII shows the distribution of financial aid among five major ethnic groups in Florida's community colleges; Table XXIV shows the distribution of types of financial aid for each ethnic group in Florida community colleges; Table XXV shows the financial aid distribution in Florida in relation to student enrollment by ethnic group. Minority groups in Florida, except for American Indians, receive more aid than their proportion of the student population. White students, however, receive aid in the form of scholarships in much higher proportion than any other group. Gold (1979) in a study of financial aid at Los Angeles City College found that blacks received over half of the financial

TABLE XXII

Nature and Extent of State Funded Financial Aid to Minority Groups Academically Disadvantaged in Community Colleges

Type of State Aid	Percent Affirmative	Weighted N
State scholarships	61	480
State guaranteed loan	29	224
State work-study	42	328
State co-op	2	12
Other aid	3	24
No state aid	16	122

Table XII. Nature and Extent of Institutional Financial Aid to the Minority Group Academically Disadvantaged in Community Colleges

Type of Institutional Aid	Percent Affirmative	Weighted N
Institutional scholarships	63	494
Institutional guaranteed loan	21	164
Institutional work-study	39	304
Institutional co-op	5	36
Other institutional aid	5	36
No institutional aid	0	0

Nature and Extent of Federally Funded Financial Aid to Minority Group Academically Disadvantaged in Community Colleges

Type of Federal Aid	Percent Affirmative	Weighted N
Federal scholarships	39	304
Federal guaranteed loan	66	520
Federal work-study	79	622
Federal co-op	10	80
Other federal aid	17	134
No federal aid	5	42

Nature and Extent of Privately Funded Aid to the Minority Group Academically Disadvantaged in Community Colleges

Type of Private Aid	Percent Affirmative	Weighted N
Private scholarship	52	506
Private guaranteed loan	16	122
Private work-study	10	80
Private co-op	0	0
Other private aid	10	80
No private aid	9	68

Source: Morrison, 1973.

TABLE XXIII

SUMMARY OF FINANCIAL ASSISTANCE TO STUDENTS BY RACE/ETHNIC GROUP (1) IN FLORIDA'S COMMUNITY COLLEGES 1976-77

	BLACK	%	AMERICAN INDIAN	%	ASIAN	%	HISPANIC	%	WHITE	%	TOTAL	%
GRANTS												
No. of Awards(1)	21,924	40.0	140	0.3	682	1.2	5,115	9.3	26,983	49.2	54,844	100.0
Dollar Amount	$11,631,139	45.2	$49,228	0.2	$384,418	1.5	$2,992,549	11.6	$10,686,921	41.5	$25,744,255	100.0
Amount/Award	$531		$352		$564		$585		$396		$469	
LOANS												
No. of Awards	2,604	28.2	24	0.3	77	0.8	503	5.5	6,013	65.2	9,221	100.0
Dollar Amount	$1,292,343	24.2	$11,821	0.2	$32,213	0.6	$278,991	5.2	$3,726,847	69.8	$5,342,215	100.0
Amount/Award	$496		$493		$418		$555		$620		$579	
SCHOLARSHIPS												
No. of Awards	1,169	25.5	13	0.3	16	0.3	243	5.3	3,142	68.6	4,583	100.0
Dollar Amount	$193,156	15.5	$1,776	0.1	$8,405	0.7	$66,053	5.3	$973,358	78.3	$1,242,748	100.0
Amount/Award	$165		$137		$525		$272		$310		$271	
STUDENT EMPLOYMENT												
No. of Awards	4,001	40.6	20	0.2	119	1.2	1,084	11.0	4,625	47.0	9,859	100.0
Dollar Amount	$2,487,140	41.4	$11,973	0.2	$81,829	1.4	$751,290	12.5	$2,669,733	44.5	$6,001,965	100.0
Amount/Award	$622		$599		$688		$693		$577		$609	
GRAND TOTAL												
No. of Awards	29,698	37.8	197	0.3	894	1.1	6,945	8.8	40,763	51.9	78,497	100.0
Dollar Amount	$15,603,778	40.7	$74,798	0.2	$506,865	1.3	$4,088,883	10.7	$18,056,859	47.1	$38,331,183	100.0
Amount/Award	$525		$380		$567		$589		$443		$488	

SOURCE: OCR 300083

(1) The Number of Awards is not a count of individuals receiving aid since one person may receive several awards.

Source: Report of the distribution of financial assistance to students in Florida's Community College, 1977.

TABLE XXIV

SUMMARY OF FINANCIAL ASSISTANCE TO STUDENTS BY RACE/ETHNIC GROUP (1)
IN FLORIDA'S COMMUNITY COLLEGES 1976-77

	BLACK	%	AMERICAN INDIAN	%	ASIAN	%	HISPANIC	%	WHITE	%	TOTAL	%
GRANTS												
No. of Awards(1)	21,924	73.8	140	71.1	682	76.3	5,115	73.7	26,983	66.2	54,844	69.9
Dollar Amount	$11,631,139	74.5	$49,228	65.8	$384,418	75.8	$2,992,549	73.2	$10,686,921	59.2	$25,744,255	67.2
Amount/Award	$531		$352		$564		$585		$396		$469	
LOANS												
No. of Awards	2,604	8.8	24	12.2	77	8.6	503	7.2	6,013	14.8	9,221	11.7
Dollar Amount	$1,292,343	8.3	$11,821	15.8	$32,213	6.4	$278,991	6.8	$3,726,847	20.6	$5,342,215	13.9
Amount/Award	$496		$493		$418		$555		$620		$579	
SCHOLARSHIPS												
No. of Awards	1,169	3.9	13	6.6	16	1.8	243	3.5	3,142	7.7	4,583	5.8
Dollar Amount	$193,156	1.2	$1,776	2.4	$8,405	1.7	$66,053	1.6	$973,358	5.4	$1,242,748	3.2
Amount/Award	$165		$137		$525		$272		$310		$271	
STUDENT EMPLOYMENT												
No. of Awards	4,001	13.5	20	10.1	119	13.3	1,084	15.6	4,625	11.3	9,849	12.5
Dollar Amount	$2,487,140	15.9	$11,973	16.0	$81,829	16.1	$751,290	18.4	$2,669,733	14.8	$6,001,965	15.7
Amount/Award	$622		$599		$688		$693		$577		$609	
GRAND TOTAL												
No. of Awards	29,698	100.0	197	100.0	894	100.0	6,945	100.0	40,763	100.0	78,497	100.0
Dollar Amount	$15,603,778	100.0	$74,798	100.0	$506,865	100.0	$4,088,883	100.0	$18,056,859	100.0	$38,331,183	100.0
Amount/Award	$525		$380		$567		$589		$443		$488	

SOURCE: OCR 3000B3
(1) The Number of Awards is not a count of individuals receiving aid since one person may receive several awards.

Source: See Table III.

TABLE XXV

COMPARISON OF ENROLLMENT TO FINANCIAL AID DISTRIBUTION
IN FLORIDA'S COMMUNITY COLLEGES
1976-77

	BLACK	AMERICAN INDIAN	ASIAN	HISPANIC	WHITE	TOTAL
Fall 1976 Headcount Enrollment (1)	22,703 13.3%	628 0.4%	1,103 0.6%	11,589 6.8%	134,196 78.8%	170,219 100.0%
Number of Recipients of Financial Assistance (Unduplicated)	20,653 36.8%	157 0.3%	555 1.0%	4,678 8.3%	30,045 53.6%	56,088 100.0%
Total Financial Assistance Dollars	$15,603,778 40.7%	$74,798 0.2%	$506,865 1.3%	$4,088,883 10.7%	$18,056,859 47.1%	$38,331,183 100.0%
Dollars/Recipient	$756	$476	$913	$874	$601	$683

(1) Additionally, there were 2,221 non-resident alien students who were not classified by race.

SOURCE: OCR 300083

Source: See Table III.

aid, although they constitute 40 percent of the student population. White, Hispanic, and Asian students received a percentage of financial assistance that was somewhat below their percentage of the college population. In 1976-1977 the American Council of Education determined that public community college students accounted for 28.5 percent of the 1.9 million students receiving aid from the following U.S. Office of Education programs: BEOG, Supplemental Educational Opportunity Grants (SEOG), State Student Incentive Grants (SSIG), College Work Study Programs (CWS), National Direct Student Loans (NDSL), and Guaranteed Student Loan Programs (AACJC, 1979). Most community college students who receive financial aid are Basic Educational Opportunity Grant (BEOG) recipients, although one condition for this grant is that students receiving it be in full-time attendance. Full-time status is also required by a number of state funded grant programs, e.g., California, Pennsylvania, Florida, New York, Oklahoma and Kentucky. However, Illinois allows half-time students to participate in the Illinois State Scholarship Grant Program.

Despite the concern about financial aid, Fuller (1976), sampling high school seniors in Los Angeles, concluded that low levels of academic achievement, inadequate information, and inflexible admission policies are greater barriers for the poor than financial need. Together with data already cited that students may benefit more from educational support services combined with financial aid than financial aid alone in EOPS programs (Lee & West, 1975), we may conclude that the question of barriers to access still needs further exploration.

In summary, one distinctive characteristic of the public two-year college is its open door mission. But critics question whether free access really exists and enumerate barriers, such as inadequate financial assistance, motivation problems, academic abilities, college bureaucracy, inadequate counseling, and students' familial pressures. In addition, some critics also maintain that precisely because of the open door policy at the two-year college ethnic minorities are channeled into this less selective segment of higher education and, thereby, are deprived of the opportunities available at four-year colleges and universities.

In response to the first criticism, the literature does indicate barriers exist, although the two-year college appears to accept much of the responsibility for overcoming them and becoming the purveyor of mass postsecondary education. In the example of CUNY, limited data support the ability of the two-year college to provide opportunity and state-level community college officials appear to include open access in their planning considerations.

In response to the criticism that the outcome of the two-year college as mass purveyors of higher education is a tracking system in which minority students end up in lower-status vocationally-oriented programs denies the variability in program admissions within the two-year college. The liberal arts transfer curriculums are less likely to have their own admission criteria than are vocational programs; thus, the curricula which can lead to transfer into baccalaureate programs, in fact, tend to be more accessable.

The debate on these issues is by no means settled, since the limited data available do not allow closure on these issues. The literature tends to be anecdotal or provide inconclusive or ungeneralizable data, due to insufficient sample size or lack of sample representativeness.

Institutional practices

While much information on institutional practices can be obtained from the literature, an examination of college catalogues can provide another view of such practices. In reviewing catalogues from the Center's national representative sample of 175 two-year colleges, we found statements and procedures that both hinder and facilitate a student's pursuit of post-secondary education.

1. Barriers

Special admissions procedures

Despite the open door policy, certain programs within particular colleges may have entrance requirements. Critics, such as Jackson (1979), as mentioned previously, maintain that such policies result in minority students entering human service and secretarial programs rather than upwardly mobile areas such as allied health, science, and engineering technology.

Indeed, health related programs appear to frequently have more stringent admission requirements than other programs (e.g., University of Minnesota-Technical College; Waseca; Iowa Lakes Community College, Lorain County Community College, Ohio; Lincoln Land Community College, Illinois; West Virginia Community College). Other areas that are more likely to have requirements beyond the college's entrance requirements are automotive technology, chemical technology, engineering, environmental and science technology, human resource technology, machine shop, visual communications and welding (e.g., Chemeketa Community College, Oregon; Northern Virginia Community College).

The programs requiring specific admission conditions tend to be vocational or technical. For example, Southeastern Community College in Iowa

stipulates that for the Arts and Science curricula the only requirement is "graduation from an approved secondary school or equivalent." For the vocational and technical curricula two additional conditions must be met by prospective enrollees: "possession of physical, mental, and emotional capabilities to profit from technical/vocational education..." and "fulfillment of the prerequisites for enrollments in a curriculum fulfilling specific standards for entrance into the particular technical/vocational curriculum which shall have been established by the State Board of Public Instruction or this institution" (Southeastern Community College catalogue, 1977-1978, p. 7). Special requirements may include aptitude tests (e.g., Wake Technical Institute, North Carolina; Lincoln Land Community College, Illinois) interviews (e.g., Iowa Lakes Community College; Hudson Valley Community College, New York; Northern Virginia Community College), particular filing dates for admission (e.g., University of Minnesota - Technical College, Waseca), particular course prerequisites (e.g., Lorain County Community College); a specific grade point average (e.g., Oakland Community College, Michigan; Northern Virginia Community College; West Virginia Northern Community College). General enrollment restrictions may provide a loophole for a college to deny admission arbitrarily such as the following stipulation in the Valencia Community College (Florida) catalogue: "The admissions committee reserves the right to deny you admission if your secondary school record provides evidence that you would be unlikely to make satisfactory progress in the educational programs provided by the college" (1977-1978, p. 16).

Course prerequisites may pose another barrier to students even though

they have successfully enrolled in a program. In a study of science curriculum, the Center for the Study of Community Colleges found while 42 percent of the science faculty required a prerequisite, the range among disciplines was wide. Seventy-eight percent of physics instructors surveyed required a prerequisite, as did over half the chemists, engineers, and mathematicians. Social science areas were less demanding (Brawer & Friedlander, 1979).

Differential tuition or fee charges

As mentioned in a previous section certain types of financial assistance require students to attend full-time to receive aid, particularly the federal BEOG program and certain state-funded grants. Since 61 percent of community college students are part-time, such a restriction affects a large group of potential students. Another way part-time students face a disadvantage may be in the way tuition is assessed. Many colleges charge a particular tuition amount to full-time students, while they charge per credit hour for part-time students (those students enrolling for less than a specific number of credits, e.g. 12 units). This system is equitable unless the per credit hour charge exceeds the flat tuition charge, such as at Mississippi Gulf Coast Junior College, where full-time students pay a matriculation fee of $130, while "special students, those taking less than twelve semester hours pay $18 per semester hour (1976-1977 catalogue, p. 48-49). Thus, students enrolling for 8 - 11 units pay a penalty in fees.

Fees charged in particular programs, particularly vocational/technical programs, may constitute a barrier to certain students. For example, Iowa

Lakes Community College lists laboratory fees for computer science, agriculture, nursing, and science courses for the use of various business machines, for tools to be used in auto body, auto mechanics, marine and small engine, farm equipment mechanics and carpentry courses, and for nursing uniforms (1976 college catalogue, p. 13-14). In the University of Kentucky Community College system, students in health-related programs must have professional liability insurance (1977-1978 college catalogue). Many of these fees are nominal, although when taken in conjunction with other costs of college attendance, they can present a hardship.

One additional way tuition charges may differentially restrict access is found in a policy such as found at Western Texas College. Tuition charges for in-state students are $4 per credit hour with a $25 minimum and for out-of-state students $20 per hour with a $60 minimum and $200 maximum, and, unlike many other colleges, the category "alien" has a $14 per hour rate with a $200 minimum.

Other institutional practices

In the concern over attrition community colleges may implement quite complicated withdrawal procedures. These procedures may require students to complete forms, secure a variety of college signatures, and complete an exit interview with the counseling staff (e.g., Jackson State Community College, Tennessee; Metropolitan Technical Community College, Nebraska). This bureaucracy may in itself discourage re-enrollment.

Grading practices in community colleges tend to be traditional. Three quarters of the instructors in studies of humanities and the sciences (Brawer & Friedlander, 1979; Center for the Study of Community Colleges, 1978) use

the traditional ABCDF grading scheme. Fifteen percent of science and social science instructors and 16 percent of humanities instructors report use of the ABCD/no credit system. No widespread use of ABC/No credit, pass/fail or pass/no credit was found, although if flexibility in grading occurred, it was more likely in medium or large, public colleges than small private institutions.

Testing approaches most frequently employed by liberal arts instructors in grade determination are quick score objective tests and essay examinations. Other activities counted towards grade determination, such as papers written outside class, research reports, homework, and laboratory reports vary by discipline. In two-year college science courses, the Center study found that 80 percent of the students who enroll receive grades.

2. Facilitating procedures

The practice of offering classes during the evening and on the weekend enables students who work or who have other obligations during the day to pursue their education. Many colleges do offer evening schedules, but weekend courses are not as common. While there is variation among institutions, certain procedures are particularly noteworthy and should be mentioned. In a number of schools students may enroll in strictly night courses or in any combination of day and night classes to achieve their degree objective. Generally, all required and elective courses are offered at night so that students can fulfill degree or certificate requirements. Staten Island Community College provides scheduling that allows students to attend classes

that meet once weekly, twice weekly, and compactly schedules certain special topics in areas such as Women's Studies, American Studies, Comparative Societies, Technology and Society.

Moore (1976) points out some problems faced by students who can only attend evening classes. First, he feels that since many evening courses are taught by part-time or adjunct faculty who frequently lack knowledge about the college, evening students may not obtain adequate academic advice. Secondly, he notes that many other support offices and services of the institution are closed and unavailable to evening students. However, some college catalogues specifically state that counseling and other services are available during the evening hours, (e.g., Chemeketa Community College, Oregon; Staten Island Community College, New York).

Other practices

Most institutions provide various mechanisms whereby students can utilize past experience to obtain advanced standing. The most common method is through the College Level Examination Program which allows students receiving a given score (usually 50th percentile of the national CLEP norms) to earn college credit in both broad subject areas and in specific college courses. College credit is also awarded for acceptable scores on the United States Armed Forces Institute college level examination. A number of schools also offer college credit for the successful completion of formal service schools and courses gained while in active military duty, the National Guard, or in the Reserves. Some schools also grant credit for work experience related to students' areas of specialization. The allied health areas seem to do this quite frequently.

The use of grades such as Incomplete, In Progress, Official Withdrawal, Withdraw/Passing (Connors State College, Oklahoma; Metropolitan Technical Community College, Nebraska; Oakland Community College, Michigan; City Colleges of Chicago) avoids having failing grades appear on student records. Some institutions such as the City Colleges of Chicago and Chemeketa (Salem, Oregon) not only allow a student to retake a course for a higher grade but only include the higher grade in computing the student's G.P.A.

The practices discussed above apply to all students. However, some of the barriers, particularly the special admission procedures and added fees may hit minority students especially hard. On the other hand, the ability of the community college to institute flexible scheduling, various methods of gaining credit and alternatives to the failing grade can enable a number of minority students to realize their educational objectives.

Articulation/Transfer

Very little of the literature on articulation/transfer between the two-year college and the senior institutions is specifically targeted toward minorities. However, the problems and issues surrounding this topic affect all two-year college students and may bear even more directly on minority students. This section will, therefore, begin by enumerating some of the major issues.

One problem recently discussed by Arthur Cohen (1979b) is how to count the number of transfer students. There are major differences among the states, among various researchers, and between two-year and four-year institutions in defining which students are considered "transfer". How many units must the students take first at the community college and then at the senior institution before they are counted? The answer, as Cohen points out, varies by state and by researcher. Transfer studies, particularly those conducted by mailed questionnaires, suffer from large non-response rates. The missing data problem is compounded by senior institutions which only report students who transfer from community colleges in the same state and by institutions which lose the records of students who drop out for a year or so or who do not enter immediately after community college. And how are "reverse" transfers--those students who transfer from a four-year to a two-year institution--handled? Clearly any data on transfers must be approached cautiously and year by year comparisons are quite suspect because of the differences in response rate and reporting categories. Discussions on the lower transfer rate for minority students must also be evaluated in light of the vagaries that abound in counting "transfer" students and the limitations of the data.

After surveying the literature, Wattenbarger and Medford (1974) found four major sources of articulation problems--the senior institution, the community college, the student, and specialized accrediting agencies. The problems attributed to the senior institutions are: 1)General education requirements within a state vary widely, 2)Senior institutions will not accept course equivalents for transfer but insist on course-for course transfer, 3)Some institutions refuse to accept the D grade for transfer, 4)Some senior institutions do not allot space for transfer students and transfer students are neglected by financial aid offices, 5)There is a continuing question by faculty on the quality of the education provided by community colleges.

The community college contributes to articulation difficulties by 1) including remedial courses for transfer credit despite the fact that senior institutions clearly state that they will not accept them, 2)including vocational courses for transfer credit, 3)including upper division courses in sophomore programs and 4)failing to adequately advise students on the transferability of certain courses. Agencies which accredit various professions at senior colleges aggravate the articulation between institutional levels by mandating that credit only be given for the introductory course taken at the community college in their effort to up-grade the requirements for entry into the profession.

Both formal and informal agreements between institutions and on a state wide basis have done a great deal to alleviate the problems cited above (See Kintzer, 1973, 1976; Parker, 1979; Wattenbarger & Medford, 1974). Following the example of Florida, which was the first to have a statewide formal policy, fourteen other states have drawn up specific articulation policies and thirteen states

have established general guidelines. Many of these policies and guidelines eliminate the need for an examination of individual course content; establish that the awarding of an associate degree meets all the general education requirements; provide that courses not included in the general education requirement apply toward the baccalaureate as elective credit, credit toward major core requirements, or are useable in another way; count D grades from the community college the same way as D grades from the four-year institution; and provide for a committee made up of members from community college and senior institutions to oversee, interpret, and review the agreement.

Certain other steps have been taken or are in progress to facilitate continuity and efficiency in the educational progress of students moving from one institution to another. Various professional associations such as the Accounting Association and the American Association of College Schools of Business have identified problem areas and made recommendations to solve them. The Association Transfer Group was formed in 1972 and through its efforts more states are considering such non-traditional procedures for accruing credit as credit by examination, credit for work experience, and credit granted on competence criteria.

Despite these positive steps various obstacles continue to hinder the educational progress of transfer students and may be particularly troublesome to minority students. The following section will briefly outline some of these continuing problems.

First, while the research is somewhat inconclusive, a number of studies indicate that academic performance is negatively affected after transfer.

This phenomenon, labeled "transfer shock", occurred in 80 of the 87 studies examined by Webb (1971). True, he also found that grades improved in subsequent terms, but the two-year cumulative average did not exceed that earned at the community college. Transfer students had higher attrition rates, graduated later and in smaller proportions, and had lower grades than native students. In the 17 transfer studies reviewed by Nolan and Hall (1978) eight reported transfer shock and four found no difference in GPA between native and transfer students. Webb (1971) attributed the drop in GPA to four factors--grading standards, coping ability, preparation for advanced work, and academic potential. These factors certainly effect minority students as they transfer to four-year institutions.

A persistent transfer problem has been financial aid. Financial aid may not follow the needy students and the costs of attending a senior college and the lack of financial aid may constitute serious problems. Allan (1974) points out that in many four-year institutions - financial aid processes are set up primarily for incoming freshmen. Wattenbarger and Medford (1974) point out that there is evidence that transfer students are neglected by financial aid offices in part because much of the available money may already be committed to native students. But even where eligibility for aid has been established by institutional policy or state policy, unless adequate and correct information is given to students they may not apply. This is certainly another articulation problem which must be resolved to assure that the education of students from the two-year colleges is not terminated prior to the baccalaureate degree because of finances.

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